

# **USS KLAHRING (FFG 42)**

## **SHELL CONDITION ASSESSMENT SURVEY INTERIOR AREAS**

**3/26/01 - 4/6/01**



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# **USS KLAKRING (FFG 42)**

## **SHELL CONDITION ASSESSMENT SURVEY**

### **INTERIOR AREAS**

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## **Summary of Conditions Found Shell Condition Assessment Survey Interior Areas**

A survey of all accessible interior spaces adjacent to the underwater hull was conducted using Hull Structure MRC 1102 and a DELMHORST model BD-2100 moisture meter. The survey was in conjunction with the SEMAT II visit from 3/26/01 – 4/6/01 at Mayport Naval Station.

The attached list reflects areas found to be historically prone to corrosion on FFG 7 class vessels and the conditions found on KLA KRING during this survey. Based on a review of the levels of corrosion cited on sister hulls, the KLA KRING is in average or better condition. The SEWAGE HANDLING & BOILER ROOM (4-160-0-Q) was the area found to be in the poorest condition. Approximately 33 linear feet of shell stiffener were found thinned or holed. The other machinery spaces had significant areas of surface corrosion, but minimal structural deterioration. In most of the machinery spaces, lagging at or below the bilge level and surrounding the various overboard connections was usually saturated and the shell and structure behind it was found corroded. A review of the specifications for shell insulation coverage requirements may reduce the amount of corrosion in these areas.

During the survey, the shipyard was power tool cleaning and painting the bilge areas in AUXILIARY MACHINERY ROOM Nos. 1 & 2. Shipsforce indicated that the MAIN MACHINERY ROOM bilge areas would also be cleaned and painted during this availability. The bilge areas of the EDUCTOR ROOM (5-51-0-Q) and AUXILIARY PROPULSION ROOM (4-100-0-E) had already been completed. In the APU Room, portions of the shell and forward bulkhead were being UT'd by the shipyard, due to conditions found during cleaning.

Many of the miscellaneous spaces showed no signs of corrosion at all. All insulated spaces surveyed were randomly checked with the moisture meter. Two spaces were found to have saturated insulation. Investigation revealed sources of the water and the areas were UT'd to ensure the corrosion was confined to the surface. 2K write-ups were developed for the leaks.

The Survey Results and Specific Areas of Corrosion sections provide additional details.

### FFG-42 STRUCTURAL INSPECTION RESULTS

LOCATION		AREA	RESULTS
MER (5-250-0-E)	(1)	Fr 271 Port Transverse Weld Seam	Shell Thinned
	(2)	Fr 250 Port Bulkhead Under Adjacent Eductor Piping	Shell Corroded, Lagging Saturated
	(3)	Fr 258 - 264 Stbd	Shell Corroded, Lagging Saturated
Berthing (3-100-0-L)	(1)	Tank Top FO 5-116-2-F	Deck Preservation in Progress
	(2)	Stbd Shell Behind Sheathing	None Noted
	(3)	Deck Plating in way of X-Flooding Trunk	Deck Preservation in Progress
APU (4-100-0-E)	(1)	Stbd Shell at Bilge Turn	Bilge Preservation in Progress
	(2)	Overhead from Ops Berthing	None Noted
A/C Mach (3-84-0-E)	(1)	Port Outboard Near Ops Berthing	Deck and Bhd Repairs in Progress
	(2)	Stbd Outboard	Deck and Bhd Repairs in Progress
	(3)	Behind A/C Unit - Portside	Deck and Bhd Repairs in Progress
	(4)	Under SFC's	Deck and Bhd Repairs in Progress
Aux. 3 (5-292-0-E)	(1)	Eductor Overboard	Shell Corroded
	(2)	Fr 316 - 328 Portside Shell to Stringer	Lagging Saturated
	(3)	Under Nr 4 SSDG Cooling Pump	Surface Corrosion
	(4)	Aft Cooling Pump near Pot Wtr Tank 5-308-2	None Noted
	(5)	Outboard Shell near Pot Wtr Tank 5-308-2	None Noted
	(6)	Bulkhead Between Aux. 3 and MER	None Noted
	(7)	Pot Wtr Tank Top 5-308-2 Under Vacuum Priming Pump	None Noted
	(8)	Pot Wtr Tank Top 5-292-1	None Noted
	(9)	Longitudinal Under Nr 4 SSDG Enclosure	None Noted
	(10)	Under Oily Waste Tank Over Skeg	None Noted
Fire Pump (4-172-1-E)	(1)	Bulkhead Between CHT & FP Room	WI to Clean Bilge Area , CHT Side
	(2)	Pump Foundation	WI
CPO Berthing	(1)	Under FCU	Repair in Progress
Aux. 2 (5-212-0-E)	(1)	Behind Nr 1 HPAC	2-K Submitted
Aux. 1 (5-180-0-E)	(1)	Port Fwd Bulkhead into CHT at Bilge	Not Assessed
CHT (4-160-0-Q)	(1)	Port Outboard Near OWS	2-K Submitted
	(2)	Behind Pump	None Noted
	(3)	At Margin Plate	2-K Submitted
	(4)	Stbd Side Bulkhead Frame 172	2-K Submitted
	(5)	Outboard Bilge Pocket Port & Stbd Frame 164	2-K Submitted
	(6)	Discharge Pump Foundation	None Noted
	(7)	Stringers Under CHT Tank	Tank Inspection
	(8)	FWD Bulkhead	None Noted
Pot Wtr Tank (5-308-2-W)	(1)	Inboard Lower Bilge 16" From JOB	None Noted
Pot Wtr Tank (5-292-2-W)	(1)	Inboard Lower Bilge 16" From Bilge	None Noted
Pot Wtr Tank (5-292-1-W)	(1)	Outboard Margin Plate	None Noted
	(2)	Inboard Bulkhead	None Noted
Foc'stle	(1)	Bulwark - Longitudinal & Vertical Stringers	Not Shell Related
Pit Sword	(1)	Fathometer	Bilge Area Cleaned and Painted

**FFG-42 STRUCTURAL INSPECTION RESULTS**

LOCATION		AREA	RESULTS
Fan Room (1-200-2-Q)	(1)	Intake From Weather	Not Shell Related
Scullery (2-203-2-Q)	(1)	FO Tank Top 5-204-2-F	Not Shell Related
Laundry (4-140-1-Q)	(1)	FO Tank Top 5-140-0-F and 5-164-2-F	Not Shell Related
Sonar Clg Rm (4-48-1-Q)	(1)	Cooler Foundation	Repairs in Progress
Gen. Workshop (2-292-2-Q)	(1)	Under FCU	Not Shell Related

**FFG 42 INTERIOR UNDERWATER HULL STRUCTURAL ASSESSMENT MATRIX**

SPACE NUMBER	SPACE ASSESSABLE	LAGGING INSTALLED ON BHD	INSPECTED DURING SEMAT I	HISTORICAL HOT SPOT	COMMENTS	2K	SAT/UNSAT
3RD DECK							
3-20-0-Q	N	N	Y		CHAIN LOCKER	N	
3-32-2-A	Y	Y	N		ACCESSIBLE HIDDEN LAGGED 100% (100% OF SHELL ASSESSABLE )	N	SAT
3-32-1-K	Y	Y	N		ACCESSIBLE HIDDEN LAGGED 100% (100% OF SHELL ASSESSABLE )	N	SAT
3-36-2-T	Y	Y	N		ACCESSIBLE HIDDEN LAGGED 100% (100% OF SHELL ASSESSABLE )	N	SAT
3-40-2-A	Y	ANTI-SWEAT COATING	N		100% ASSESSABLE	N	SAT
3-46-1-A	Y	ANTI-SWEAT COATING	N		100% ASSESSABLE. SMALL DENT IN SHELL, FR 56, 2' ABV THE DECK	N	SAT
3-48-2-A	Y	ANTI-SWEAT COATING	N		100% ASSESSABLE	N	SAT
3-53-2-A	Y	ANTI-SWEAT COATING	N		100% ASSESSABLE	N	SAT
3-36-1-A	Y	ANTI-SWEAT COATING	N		100% ASSESSABLE	N	SAT
3-56-0-A	Y	ANTI-SWEAT COATING	N		100% ASSESSABLE	N	SAT
3-64-2-V	Y	N	Y		OPEN FOR INSPECTION	N	SAT
3-64-1-V	Y	N	Y		OPEN FOR INSPECTION	N	SAT
3-84-0-E	Y	LAGGING WAS REMOVED FROM LOWER AREAS OF THE SHELL FOR DECK AND AFT BHD REPAIRS	N	FRS 94-100 STBD SIDE SHELL, DECK TO OVERHEAD, FR 95 PORTSIDE AT TANKTOP.	SFC'S AND A/C UNITS WERE REMOVED FOR DECK REPAIRS. SOME CORROSION WAS NOTED AT THE THIRD DECK LINE, BUT WILL BE CLEANED AND PRESERVED AS PART OF DECK REPAIRS	N	SAT*
3-100-1-L	Y	Y	N		LAGGING 100% AND SS 50% (SS INSTALLED 49" OFF DECK, FRAMES 100 TO 113)	N	SAT

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<b>SPACE NUMBER</b>	<b>SPACE ASSESSABLE</b>	<b>LAGGING INSTALLED ON BHD</b>	<b>INSPECTED DURING SEMAT I</b>	<b>HISTORICAL HOT SPOT</b>	<b>COMMENTS</b>	<b>2K</b>	<b>SAT/UNSAT</b>
3-113-0-L	Y	Y	N	FRS 113-124, STBD SIDE OF SHELL, DECK TO OVERHEAD	LAGGING 100% AND SS 50% (SS INSTALLED 49" OFF DECK, FRAMES 113 TO 123)	N	SAT
3-140-2-L	Y	Y	N		LAGGING 100% AND SS 50% (SS INSTALLED 49" OFF DECK, FRAMES 140 TO 155)	N	SAT
3-140-1-A	Y	Y	N		LAGGING 100%	N	SAT
3-144-0-L	Y	Y	N		ACCESSIBLE HIDDEN LAGGED 100% INSPECTORS CLIMBED OVER OUTFITTINGS TO ACCESS SHELL. SOME SURFACE CORROSION WAS NOTED. SHIPSFORCE INDICATED SHIPYARD WAS TO CLEAN AND PRESERVE.	N	SAT
3-156-2-Q	Y	Y	N		ACCESSIBLE HIDDEN LAGGED 100% (100% OF SHELL ASSESSABLE )	N	SAT
3-154-1-Q	Y	Y	N		ACCESSIBLE HIDDEN LAGGED 100% (100% OF SHELL ASSESSABLE )	N	SAT
3-180-2-C	Y	Y	N		ACCESSIBLE HIDDEN LAGGED 100% (100% OF SHELL ASSESSABLE )	N	SAT

**FFG 42 INTERIOR UNDERWATER HULL STRUCTURAL ASSESSMENT MATRIX**

<b>SPACE NUMBER</b>	<b>SPACE ASSESSABLE</b>	<b>LAGGING INSTALLED ON BHD</b>	<b>INSPECTED DURING SEMAT I</b>	<b>HISTORICAL HOT SPOT</b>	<b>COMMENTS</b>	<b>2K</b>	<b>SAT/UNSAT</b>
3-180-5-A	Y	LAGGING WAS OPENED TO EXPOSE CORROSION	N		SEE SPECIFICS SECTION. GRAY WATER DRAIN LINE LEAK DISCOVERED BY MOISTURE CHECK. INVESTIGATION REVEALED SURFACE CORROSION ON THE SHELL AND STIFFENERS BEHIND THE LAGGING IN WAY OF THE LEAK. UT ACCOMPLISHED 4/4. SAT.	2K SUB. FOR CORR. AND LEAK REPAIR	UNSAT
3-196-2-A	Y	ANTI-SWEAT COATING	N		SPACE WAS EMPTY. 100% ASSESSABLE	N	SAT
3-328-0-A	Y	LAGGING WAS OPENED TO EXPOSE CORROSION	N		SEE SPECIFICS SECTION. DECK DRAIN LINE LEAK DISCOVERED BY MOISTURE CHECK. INVESTIGATION REVEALED SURFACE CORROSION ON THE SHELL AND STIFFENERS BEHIND THE LAGGING FROM FR 330 TO 367. UT ACCOMPLISHED 4/4. SAT. SHIPYARD TO REMOVE LAGGING AND CLEAN AND PRESERVE.	2K SUB. FOR CORR. AND LEAK REPAIR	UNSAT



**FFG 42 INTERIOR UNDERWATER HULL STRUCTURAL ASSESSMENT MATRIX**

<b>SPACE NUMBER</b>	<b>SPACE ASSESSABLE</b>	<b>LAGGING INSTALLED ON BHD</b>	<b>INSPECTED DURING SEMAT I</b>	<b>HISTORICAL HOT SPOT</b>	<b>COMMENTS</b>	<b>2K</b>	<b>SAT/UNSAT</b>
<b>4TH DECK</b>							
<b>4-32-0-Q</b>	<b>Y</b>		<b>N</b>			<b>N</b>	<b>SAT</b>
<b>4-48-2-L</b>	<b>Y</b>	<b>Y</b>	<b>N</b>		ACCESSIBLE HIDDEN LAGGED 100% (100% OF SHELL ASSESSABLE )	<b>N</b>	<b>SAT</b>
<b>4-48-1-Q</b>	<b>Y</b>	LAGGING REMOVED FOR REPAIRS	<b>N</b>	FRS 49-55 STBD SIDE OF SHELL, 4'-0" OFF DECK	REPAIRS INCLUDE REPLACING 12' OF STRINGER. *THE SHELL WILL BE CLEANED AND PRESERVED WHEN REPAIRS ARE COMPLETE	<b>N</b>	<b>SAT</b>
<b>4-56-2-A</b>	<b>Y</b>	<b>Y</b>	<b>N</b>		ACCESSIBLE HIDDEN LAGGED 100% (100% OF SHELL ASSESSABLE )	<b>N</b>	<b>SAT</b>
<b>4-56-0-M</b>	<b>Y</b>	ANTI-SWEAT COATING	<b>N</b>		100% ASSESSABLE	<b>N</b>	<b>SAT</b>
<b>4-64-0-Q</b>	<b>Y</b>	ANTI-SWEAT COATING	<b>N</b>		100% ASSESSABLE	<b>N</b>	<b>SAT</b>
<b>4-100-0-E</b>	<b>Y</b>	<b>Y</b>	<b>N</b>	FRS 100-101 STBD SIDE OF SHELL, 6" BELOW GRATING	SEE SPECIFIC SECTION. COMPLETE CLEANING AND PRESERVATION OF BILGES IN PROGRESS. SOME PITS AND DETERIORATION NOTED IN THE SHELL. SHIPYARD WAS UTING HOLED AREA IN FWD BHD, STBD SIDE AT THE MARGIN PLATE	<b>N</b>	<b>SAT</b>
<b>4-140-0-Q</b>	<b>Y</b>	<b>Y</b>	<b>N</b>	TANK TOP FOR 5-140 & 5-164-2 F	STAINLESS STEEL 100% (100% OF PORT SIDE SHELL ASSESSABLE )	<b>N</b>	<b>SAT</b>
<b>4-140-3-A</b>	<b>Y</b>	<b>N</b>	<b>N</b>		ACCESSIBLE HIDDEN LAGGED 100% (100% OF SHELL ASSESSABLE )	<b>N</b>	<b>SAT</b>
<b>4-151-3-A</b>	<b>Y</b>	<b>N</b>	<b>N</b>		100% ASSESSABLE	<b>N</b>	<b>SAT</b>

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<b>SPACE NUMBER</b>	<b>SPACE ASSESSABLE</b>	<b>LAGGING INSTALLED ON BHD</b>	<b>INSPECTED DURING SEMAT I</b>	<b>HISTORICAL HOT SPOT</b>	<b>COMMENTS</b>	<b>2K</b>	<b>SAT/UNSAT</b>
4-152-1-A	Y	N	N		ACCESSIBLE HIDDEN LAGGED 100% (100% OF SHELL ASSESSABLE )	N	SAT
4-160-O-Q	Y	N	N	STIFFENER P7 & S7	SEE SPECIFICS SECTION. STIFFENERS AND SHELL CORRODED. P7 S8 &S9 HOLED. SEE UT SKETCH	Y	UNSAT
4-172-1-E	Y	N	N	FRS 174-180 STBD SIDE OF SHELL, 6" BELOW GRATING BETWEEN L7-L9	100% OF STBD SHELL ASSESSABLE	N	SAT

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<b>SPACE NUMBER</b>	<b>SPACE ASSESSABLE</b>	<b>LAGGING INSTALLED ON BHD</b>	<b>INSPECTED DURING SEMAT I</b>	<b>HISTORICAL HOT SPOT</b>	<b>COMMENTS</b>	<b>2K</b>	<b>SAT/UNSAT</b>
1ST/2ND PLAT							
5-51-0-Q	Y	N	N		100% OF PORT & STBD SHELL ASSESSABLE. SHIPYARD CLEANED AND PAINTED BILGE AREA	N	SAT
5-137-1-T	Y	N	Y		SPACE REQUIRES GAS FREE	N	SAT
5-180-0-E	NO. SHIPYARD CLEANING AND PRESERVING BILGE AREA	Y	N	FRAME 180,PORT SIDE, 15'-0" OFF CL, 8' SQ FT			
5-180-01-E	NO. SHIPYARD CLEANING AND PRESERVING BILGE AREA	Y	N				
5-212-0-E (UL)	Y	Y	N	FRS 215-220 PORT SIDE OF SHELL, U/L BETWEEN L13-L14	SEE SPECIFIC SECTION. CORRODED STIFFENERS AND SHELL IN WAY OF SATURATED LAGGING	Y	UNSAT
5-212-0-E (LL)	Y	PARTIAL	N		STIFFENERS P9&P10 FOUND THINNED AND POSSIBLY HOLED.SHIPYARD CLEANING AND PRESERVING BILGE AREAS	Y	UNSAT

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5-226-2-E	Y	N	N		ACCESS COVERS WERE OPEN. BILGE AREAS WERE HEAVILY SATURATED WITH OIL. THE WERE SOME AREAS OF PAINT FAILURE, BUT THE OIL WAS PREVENTING CORROSION	N	SAT*
5-226-1-E	Y	N	N		ACCESS COVERS WERE OPEN. BILGE AREAS WERE HEAVILY SATURATED WITH OIL. THE WERE SOME AREAS OF PAINT FAILURE, BUT THE OIL WAS PREVENTING CORROSION	N	SAT*
5-250-0-E	Y	Y	N	FR 271-272 PORT SIDE OF SHELL, TOP OF LO TK TOP, FR 250 PORT SIDE OF SHELL BETWEEN P9 AND P12, FR 258-264 STBD SIDE OF SHELL BETWEEN S9 AND S12	SOME SHELL THINNING IN WAY OF TRANSV. WELD SEAM AT FR 271 PORT. EXTENSIVE LENGTHS OF BILGE AREA STIFFENERS, ESPECIALLY ON THE PORT SIDE, SHOWED HEAVY SCALING WHICH HAD BEEN PAINTED OVER. THE LOWER 6-8' OF LAGGING WAS SATURATED AND THE STRUCTURE BEHIND IT WAS CORRODED, PORT AND STBD, FR 250-264.	Y	UNSAT

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<b>SPACE NUMBER</b>	<b>SPACE ASSESSABLE</b>	<b>LAGGING INSTALLED ON BHD</b>	<b>INSPECTED DURING SEMAT I</b>	<b>HISTORICAL HOT SPOT</b>	<b>COMMENTS</b>	<b>2K</b>	<b>SAT/UNSAT</b>
5-292-0-E	Y	Y	N	FR 316-328 PORT SIDE OF SHELL, BETWEEN L5-L9, FR 292-328 PORT SIDE OF SHELL, BETWEEN P1 AND P3	SOME CORROSION WAS NOTED IN THE AREAS AROUND THE STERN TUBE AND THE STIFFENERS UNDER THE AIR FLASK IN THE DIESEL ENCLOSURE. UT'S INDICATE CORROSION IS SURFACE RUST AND SCALING. SHIPSFORCE INDICATED BILGE AREA HAD BEEN PAINTED DURING THE LAST AVAILABILITY, BUT THAT THEY WERE SPOT PAINTING IT NOW.	N	SAT*
5-368-01-E	Y	Y	N		ACCESSIBLE HIDDEN LAGGED 100% (100% OF SHELL ASSESSABLE )	N	SAT
5-376-1-A	Y	Y	N		ACCESSIBLE HIDDEN LAGGED 100% (100% OF SHELL ASSESSABLE )	N	SAT
5-390-1-A	Y	Y	N		ACCESSIBLE HIDDEN LAGGED 100% (100% OF SHELL ASSESSABLE )	N	SAT

# **SHELL CONDITION ASSESSMENT SURVEY SEWAGE HANDLING & BOILER ROOM (4-160-0-E)**

- 1. 2K's submitted:**
  - a. EM04-P225 – Shell and structure UT.**
  - b. EM04-xxxx - Stiffener replacement.**
  - c. EM04-xxxx – Bilge cleaning and preservation**
- 2. Random UT's of corroded stiffeners and shell port and stbd, Fr 160-180, indicates corrosion is surface deterioration except as noted in the 2K's and UT readings.**

# MATERIAL ASSESSMENT FORM

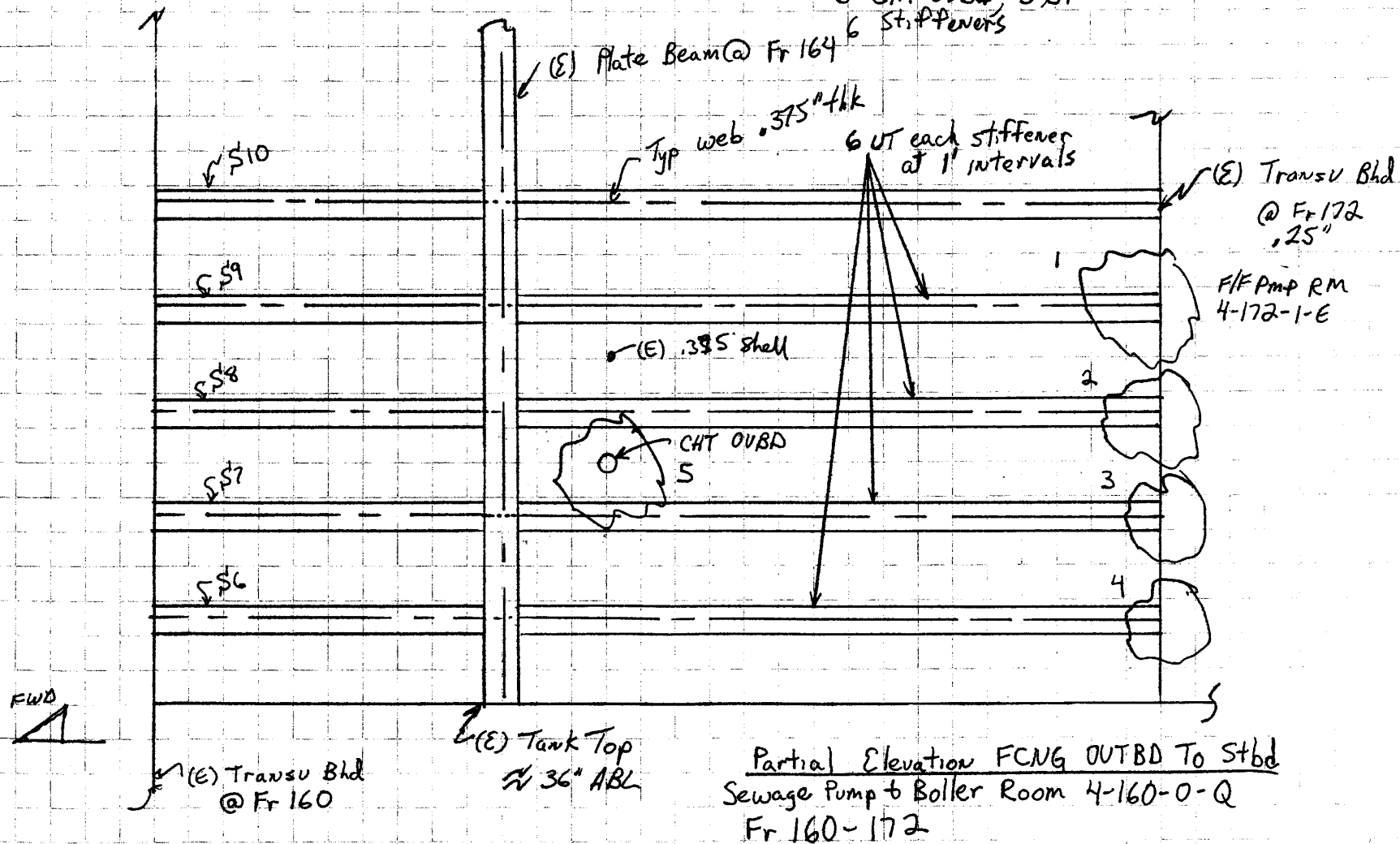
ITEM NUMBER				SHIP <b>USS KLA KRING FFG 42</b>									
<b>SYSTEM</b> <b>HULL STRUCTURE</b>			<b>ESWBS</b> <b>11021</b>		<b>EIC</b> <b>A301</b>		<b>APL</b> <b>N/A</b>		<b>RIC</b>				
<b>EQUIPMENT NAME</b> <b>SHELL&amp;SUPPORTING STRUCTURE</b>				<b>IDENT/SERIAL</b> <b>N/A</b>		<b>LOCATION</b> <b>4-160-0-Q</b>		<b>WORK CENTER</b> <b>EM04</b>		<b>JSN</b>			
<b>EQUIPMENT STATUS</b>			<b>PROBLEM STATUS</b>			<b>CATEGORY</b>				<b>EOC</b>			
1. SAT - SATISFACTORY 2. UNSAT - UNSATISFACTORY 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD			1. C - CORRECTED* 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* 4. S - SHIPS FORCE* *UNCORRECTED PROBLEMS			1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. H - HARDWARE 4. D - DOWN* 5. L - LIMITED				<b>.9</b>			
<b>TYPE AVAILABILITY</b>		<b>WHEN TO BE ACCOMPLISHED</b>		<b>STATUS</b>		<b>CAUSE</b>		<b>DEFERRAL REASON</b>					
1. DEPOT 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL		1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. PRIOR TO NEXT DEPLOYMENT 4. DURING POST DEPLOYMENT AVAILABILITY		1. OPERATIONAL 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE OR SKILL 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. NORMAL WEAR AND TEAR 8. NOT APPLICABLE		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FO S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE					
<b>MAN HRS EXPENDED</b> <b>0001</b>		<b>MAN HRS REMAINING</b> <b>1</b>		<b>COMPLETED ACTION TAKEN</b>				<b>S/F MANHOURS</b>		<b>PRIORITY</b>			
<b>SAFETY HAZARD</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL				1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 2-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION				1. MANDATORY 2. ESSENTIAL 3. HIGHLY DESIRABLE 4. DESIRABLE					
DISCREPANCY DESCRIPTION: <b>PER SEMAT I INSPECTION OF SEWAGE HANDLING &amp; BOILER ROOM (4-160-0-Q),</b>													
<b>THE 2<sup>ND</sup> THRU 5<sup>TH</sup> STIFFENERS(S6-S9) FROM THE DECK, STBDSIDE, FR 160-172 WERE FOUND</b>													
<b>CORRODED. APPROX. 3 SF OF THE SHELL(.375 HY80) IN WAY OF THE CHT OVBD, FR 167</b>													
<b>AND APPROX 5 SF OF THE F/FPMP ROOM (4-172-1-E),FWD BHD IN WAY OF LONG STIFFENERS ARE</b>													
<b>CORRODED. THE 4<sup>TH</sup> STIFFENER FROM THE DECK (P8), PORTSIDE FR 160-168 IS CORRODED.</b>													
<b>RECOMMENDED REPAIRS</b>													
<b>REMOVE CORROSION AND ACCOMPLISH UT SURVEY OF AREAS ON SKETCH PROVIDED TO THE</b>													
<b>CHIEF ENGINEER. (APPROX. 106 READINGS) ACCOMPLISH IN CONJUNCTION WITH EM01-2896</b>													
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001, TPOC: D. SMITH /HUGHES, CDI</b>													
<b>CSMP SUMMARY</b> <b>SEWAGE HANDLING&amp; BOILER ROOM(4-160-0-Q) STIFFENERS CORRODED</b>									<b>TEST # MRC 1102/1</b>				
<b>ROOT CAUSE/AMPLIFICATION</b> <b>H1</b>									<b>STEP #</b> <b>1.a</b>				
<b>SYSTEM LEVEL IMPACT</b>													
<b>PART NO.</b>				<b>NOMENCLATURE</b>				<b>QTY</b>		<b>NSN</b>		<b>COST</b>	
<b>FIRST CONTACT</b> <b>DANZING</b>				<b>RATE</b> <b>HT2</b>		<b>SECOND CONTACT</b> <b>KESSELRING</b>				<b>RATE</b> <b>DC1</b>		<b>PHONE</b>	
<b>BLUEPRINTS, TECH MANUALS, PLANS, ETC.</b>										<b>ON BOARD</b> <b>YES</b>		<b>NO</b>	

2 Lima

EMO4-P225

Survey Areas

- 1 Shell and Bhd in way of S9
- 2 Shell and bhd in way of S8
- 3 Shell and bhd in way of S7
- 4 Shell and bhd in way of S6
- 5 CHT OVBD 3 SF
- 6 Stiffeners





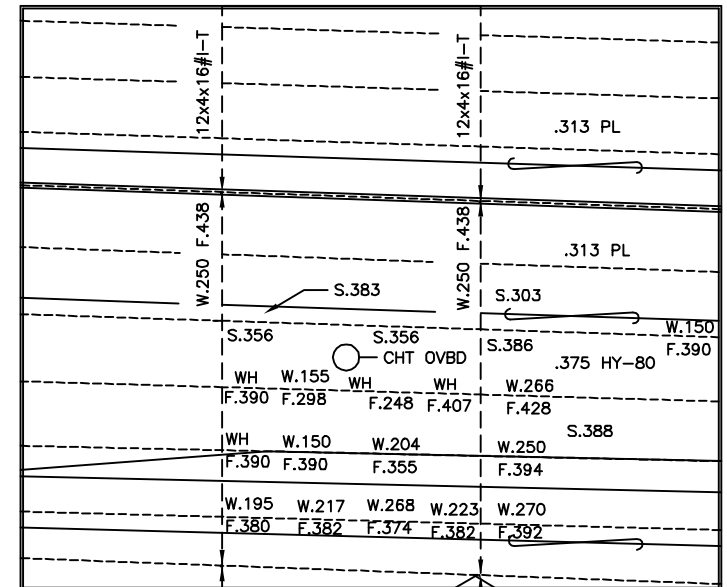
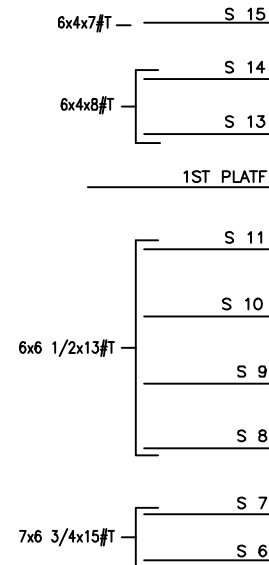
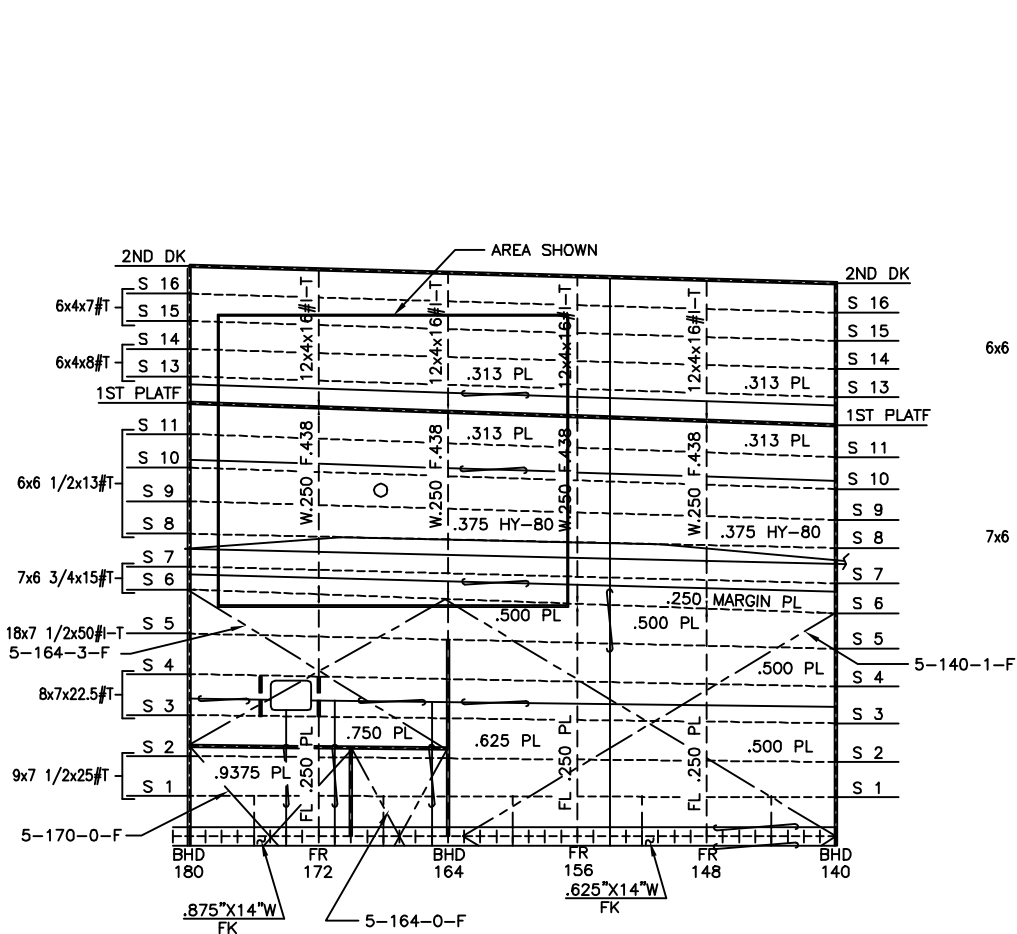
# MATERIAL ASSESSMENT FORM

ITEM NUMBER				SHIP <b>USS KLA KRING FFG 42</b>											
SYSTEM <b>HULL STRUCTURE</b>			ESWBS <b>11021</b>		EIC <b>A301</b>		APL <b>N/A</b>		RIC						
EQUIPMENT NAME <b>SHELL&amp;SUPPORTING STRUCTURE</b>				IDENT/SERIAL <b>N/A</b>		LOCATION <b>4-160-0-Q</b>		WORK CENTER <b>EM04</b>		JSN					
EQUIPMENT STATUS			PROBLEM STATUS			CATEGORY				EOC					
1. SAT - SATISFACTORY 2. UNSAT - UNSATISFACTORY 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD			1. C - CORRECTED* 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* 4. S - SHIPS FORCE* *UNCORRECTED PROBLEMS			1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. H - HARDWARE 4. D - DOWN* 5. L - LIMITED				<b>.5</b>					
TYPE AVAILABILITY		WHEN TO BE ACCOMPLISHED		STATUS		CAUSE		DEFERRAL REASON							
1. DEPOT 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL		1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. PRIOR TO NEXT DEPLOYMENT 4. DURING POST DEPLOYMENT AVAILABILITY		1. OPERATIONAL 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE OR SKILL 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. NORMAL WEAR AND TEAR 8. NOT APPLICABLE		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FO S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE							
MAN HRS EXPENDED <b>0001</b>		MAN HRS REMAINING <b>1</b>		COMPLETED ACTION TAKEN		S/F MANHOURS		PRIORITY							
<b>SAFETY HAZARD</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL				1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 2-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION				1. MANDATORY 2. ESSENTIAL 3. HIGHLY DESIRABLE 4. DESIRABLE							
DISCREPANCY DESCRIPTION: <b>PER SEMAT I INSPECTION OF SEWAGE HANDLING &amp; BOILER ROOM (4-160-0-Q),</b>															
<b>STIFFENER S7(7"X6 3/4" T) FROM FR 160-172, S8 &amp; S9(6"X 6 1/2" T ) FROM FR 164- 172 AND P7(7"X6 3/4" T)</b>															
<b>FROM FR 170-175 WERE FOUND CORRODED AND HOLED. UT READINGS 4/4/01 INDICATE STIFFENERS</b>															
<b>ARE BELOW MINIMUM TOLERANCES.</b>															
<b>RECOMMENDED REPAIRS</b>															
<b>CROP OUT AND REPLACE APPROXIMATELY 17 LF OF (7"X 6 3/4" T) AND APPROX 16 LF OF (6"X 6 1/2" T)</b>															
<b>AS INDICATED ABOVE. PRIME AND APPLY ANTI-SWEAT COATING OVER ALL NEW AND DISTURBED</b>															
<b>SURFACES.</b>															
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001, TPOC: D. SMITH /HUGHES, CDI</b>															
<b>CSMP SUMMARY</b> <b>SEWAGE HANDLING&amp; BOILER ROOM(4-160-0-Q) STIFFENERS CORRODED</b>									<b>TEST # MRC 1102/1</b>						
<b>ROOT CAUSE/AMPLIFICATION H1</b>									<b>STEP # 1.a</b>						
<b>SYSTEM LEVEL IMPACT</b>															
<b>PART NO.</b>				<b>NOMENCLATURE</b>				<b>QTY</b>		<b>NSN</b>		<b>COST</b>			
<b>FIRST CONTACT</b> <b>DANZING</b>				<b>RATE</b> <b>HT2</b>		<b>SECOND CONTACT</b> <b>KESSELRING</b>				<b>RATE</b> <b>DC1</b>		<b>PHONE</b>			
<b>BLUEPRINTS, TECH MANUALS, PLANS, ETC.</b>										<b>ON BOARD</b> <b>YES NO</b>					
<b>ASSESSOR / ACT / TECH ID#</b> <b>SPORT 221/ D. SMITH/ HUGHES, CDI</b>								<b>TD</b>		<b>TL</b>		<b>LOGISTICIAN</b>		<b>TSP</b>	

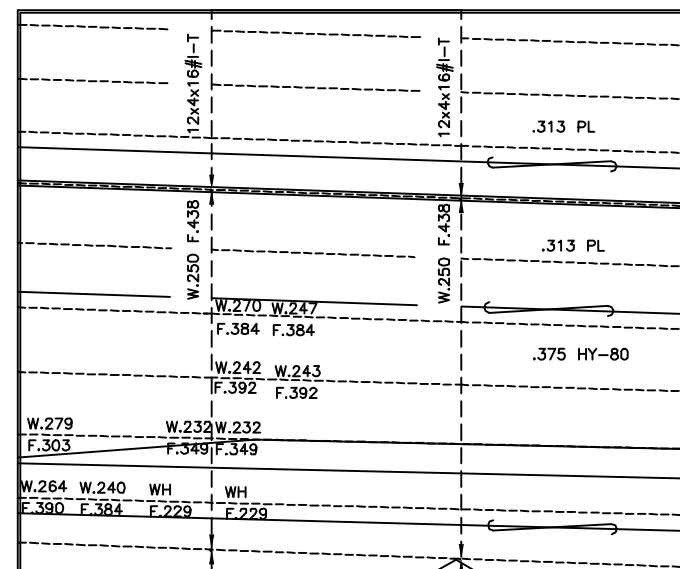
# MATERIAL ASSESSMENT FORM

ITEM NUMBER				SHIP <b>USS KLA KRING FFG 42</b>											
<b>SYSTEM</b> <b>HULL STRUCTURE</b>			<b>ESWBS</b> <b>11021</b>		<b>EIC</b> <b>A301</b>		<b>APL</b> <b>N/A</b>		<b>RIC</b>						
<b>EQUIPMENT NAME</b> <b>SHELL&amp;SUPPORTING STRUCTURE</b>				<b>IDENT/SERIAL</b> <b>N/A</b>		<b>LOCATION</b> <b>4-160-0-Q</b>		<b>WORK CENTER</b> <b>EM04</b>		<b>JSN</b>					
<b>EQUIPMENT STATUS</b>			<b>PROBLEM STATUS</b>			<b>CATEGORY</b>			<b>EOC</b>						
1. SAT - SATISFACTORY 2. UNSAT - UNSATISFACTORY 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD			1. C - CORRECTED* 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* 4. S - SHIPS FORCE* *UNCORRECTED PROBLEMS			1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. H - HARDWARE 4. D - DOWN* 5. L - LIMITED			.9						
<b>TYPE AVAILABILITY</b>		<b>WHEN TO BE ACCOMPLISHED</b>		<b>STATUS</b>		<b>CAUSE</b>		<b>DEFERRAL REASON</b>							
1. DEPOT 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL		1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. PRIOR TO NEXT DEPLOYMENT 4. DURING POST DEPLOYMENT AVAILABILITY		1. OPERATIONAL 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE OR SKILL 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. NORMAL WEAR AND TEAR 8. NOT APPLICABLE		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FO S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE							
<b>MAN HRS EXPENDED</b> <b>0001</b>		<b>MAN HRS REMAINING</b> <b>1</b>		<b>COMPLETED ACTION TAKEN</b>		<b>S/F MANHOURS</b>		<b>PRIORITY</b>							
<b>SAFETY HAZARD</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL				1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 2-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION				1. MANDATORY 2. ESSENTIAL 3. HIGHLY DESIRABLE 4. DESIRABLE							
DISCREPANCY DE Scription: <b>PER SEMAT I INSPECTION OF SEWAGE HANDLING &amp; BOILER ROOM (4-160-0-Q),</b>															
<b>THE BILGE AREA FROM THE TANKTOP TO LOWER SIDEOF THE 1<sup>ST</sup> STIFFENER ABOVE THE TANKTOP</b>															
<b>FROM FR 143 -172, PORT AND STBD SIDE, INCLUDING THE SHELL, WAS FOUND CORRODED.</b>															
<b>RECOMMENDED REPAIRS</b>															
<b>REMOVE CORROSION AND PRESERVE APPROXIMATELY 180 SF OF BILGE AREA.</b>															
<b>SUPERCEDES AND CANCELS EM01-2896.</b>															
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001, TPOC: D. SMITH /HUGHES, CDI</b>															
<b>CSMP SUMMARY</b> <b>SEWAGE HANDLING&amp; BOILER ROOM(4-160-0-Q) BILGES CORRODED</b>									<b>TEST # MRC 1102/1</b>						
<b>ROOT CAUSE/AMPLIFICATION</b> <b>H1</b>									<b>STEP #</b> <b>1.a</b>						
<b>SYSTEM LEVEL IMPACT</b>															
<b>PART NO.</b>				<b>NOMENCLATURE</b>				<b>QTY</b>		<b>NSN</b>		<b>COST</b>			
<b>FIRST CONTACT</b> <b>DANZING</b>				<b>RATE</b> <b>HT2</b>		<b>SECOND CONTACT</b> <b>KESSELRING</b>				<b>RATE</b> <b>DC1</b>		<b>PHONE</b>			
<b>BLUEPRINTS, TECH MANUALS, PLANS, ETC.</b>										<b>ON BOARD</b> <b>YES</b> <b>NO</b>					
<b>ASSESSOR / ACT / TECH ID#</b> <b>SPORT 221/ D. SMITH/ HUGHES, CDI</b>								<b>TD</b>		<b>TL</b>		<b>LOGISTICIAN</b>		<b>TSP</b>	

S.374 = SHELL READING  
W.150 = WEB READING  
F.390 = FLANGE READING  
H = HOLED



S 6



FR 18	FR 172	FR 164
		F. 384
		W 270 W. 247
		F. 392 F. 392
		W 242 W. 243
F 303	F. 349	1349
W 279	W 1282	1232
F 391 F 324 F 385	F. 229	F. 229
W 264 W 240 W HOLE	W HOLE	
MARGIN PLATE		
C HT PUMP RM		

PORT

#17 DESIGN MIN  
 F. 386 1383  
 W 1270 1270

#8 F. 400 1383  
 #9, #10 W 1138 1138

PLATE 1375 min 1338

	MARGIN PLATE				
7	.380	.382	F. 274	F. 382	F. 392 FR 160
	.195	.217	W. 268	W. 223	W 1.02 W 1270
					1374
8	HOLE	F. 390	F. 355		F. 1354
	W 268	W 150	W 1204		W 1250
					1388
9		F. 298	F. 248	F. 402	F. 428
	HOLE	W 155	HOLE	HOLE	W 186
	W 268	W 155	W 186	W 186	W 266
10	.356	373			F. 398
		OVBD			W 238
	.383				.303

STBD

FJ LAROCK/J LAROCK  
 QSD SYSTEMS INC  
 4/3/01

USS KLAARING FFG 42

FFG-42 Sewage Handling & Boiler Room 4-160-1-Q



Heavy corrosion around CHT overboard, stbd shell, FR 166. Shell is thinned but is still over 75% of original thickness.



Additional view of overboard area.

FFG-42 Sewage Handling & Boiler Room 4-160-1-Q



View of the stbd shell Fr 164-172. Fresh anti-sweat coating masks heavy scaling of shell and stiffeners.



Corrosion at Fr 172, stbd, bhd to F/F PUMP ROOM. Bhd is thin, but not holed after needle gunning

# **SHELL CONDITION ASSESSMENT SURVEY DRY PROVISIONS STOREROOM (3-180-5-A)**

- 1. 2K's submitted:**
  - a. SS02-xxxx – Shell and structure UT.**
  - b. SS02-xxxx – Shell cleaning and preservation.**
  - c. SS02-xxxx - Drain line repair**
- 2. Random UT's of corroded stiffeners and shell stbd, Fr 186-203, indicates corrosion is surface deterioration.**
- 3. A graywater drain line from the galley leaked into the lagging. The leak was discovered after the moisture meter indicated saturated lagging.**



# MATERIAL ASSESSMENT FORM

ITEM NUMBER				SHIP <b>USS KLA KRING FFG 42</b>				
<b>SYSTEM</b> <b>HULL STRUCTURE</b>		<b>ESWBS</b> <b>11021</b>	<b>EIC</b> <b>A301</b>	<b>APL</b> <b>N/A</b>		<b>RIC</b>		
<b>EQUIPMENT NAME</b> <b>SHELL&amp;SUPPORTING STRUCTURE</b>		<b>IDENT/SERIAL</b> <b>N/A</b>	<b>LOCATION</b> <b>3-180-5-A</b>		<b>WORK CENTER</b> <b>SS02</b>	<b>JSN</b>		
<b>EQUIPMENT STATUS</b>		<b>PROBLEM STATUS</b>	<b>CATEGORY</b>			<b>EOC</b>		
1. SAT - SATISFACTORY 2. UNSAT - UNSATISFACTORY 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD		1. C - CORRECTED* 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* 4. S - SHIPS FORCE* *UNCORRECTED PROBLEMS	1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. H - HARDWARE 4. D - DOWN* 5. L - LIMITED			.9		
<b>TYPE AVAILABILITY</b>	<b>WHEN TO BE ACCOMPLISHED</b>	<b>STATUS</b>	<b>CAUSE</b>		<b>DEFERRAL REASON</b>			
1. DEPOT 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL	1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. PRIOR TO NEXT DEPLOYMENT 4. DURING POST DEPLOYMENT AVAILABILITY <b>30MAR02</b>	1. OPERATIONAL 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE	1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE OR SKILL 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. NORMAL WEAR AND TEAR 8. NOT APPLICABLE		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FO S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE			
<b>MAN HRS EXPENDED</b> <b>0001</b>	<b>MAN HRS REMAINING</b> <b>1</b>	<b>COMPLETED ACTION TAKEN</b>		<b>S/F MANHOURS</b>	<b>PRIORITY</b>			
<b>SAFETY HAZARD</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL		1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 2-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION			1. MANDATORY 2. ESSENTIAL 3. HIGHLY DESIRABLE 4. DESIRABLE			
DISCREPANCY DESCRIPTION: <b>PER SEMAT I INSPECTION OF DRY GOODS STRM (3-180-5-A), THE SHELL LAGGING</b>								
<b>ON THE 1<sup>ST</sup> STIFFENER(S13) ABOVE THE 3<sup>RD</sup> DECK, STBDSIDE, FR 186-203 AND SHELL 6" ABOVE AND</b>								
<b>BELOW THE STIFFENER WAS FOUND SATURATED.</b>								
<b>RECOMMENDED REPAIRS</b>								
<b>REMOVE APPROX. 34 SF OF SATURATED SHELL INSULATION AND CORROSION EXPOSED BY</b>								
<b>REMOVALS. PRIME AND PRESERVE SHELL AND STRUCTURE AND INSTALL NEW LAGGING.</b>								
<b>PAINT NEW LAGGING TO MATCH SURROUNDING AREAS.</b>								
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001, TPOC: D. SMITH /HUGHES, CDI</b>								
<b>CSMP SUMMARY</b> <b>DRY GOODS STRM (3-180-5-A) STIFF &amp; SHELL LAGGING SATURATED</b>					<b>TEST # MRC 1102/1</b>			
<b>ROOT CAUSE/AMPLIFICATION</b> <b>H1</b>					<b>STEP # 1.a</b>			
<b>SYSTEM LEVEL IMPACT</b>								
<b>PART NO.</b>		<b>NOMENCLATURE</b>		<b>QTY</b>	<b>NSN</b>		<b>COST</b>	
<b>FIRST CONTACT</b> <b>XXXX</b>		<b>RATE</b> <b>MS3</b>	<b>SECOND CONTACT</b> <b>WOODS</b>		<b>RATE</b> <b>MS1</b>	<b>PHONE</b>		
<b>BLUEPRINTS, TECH MANUALS, PLANS, ETC.</b>						<b>ON BOARD</b> <b>YES NO</b>		
<b>ASSESSOR / ACT / TECH ID#</b> <b>SPORT 221/ D. SMITH/ HUGHES, CDI</b>					<b>TD</b>	<b>TL</b>	<b>LOGISTICIAN</b> <b>TSP</b>	

# MATERIAL ASSESSMENT FORM

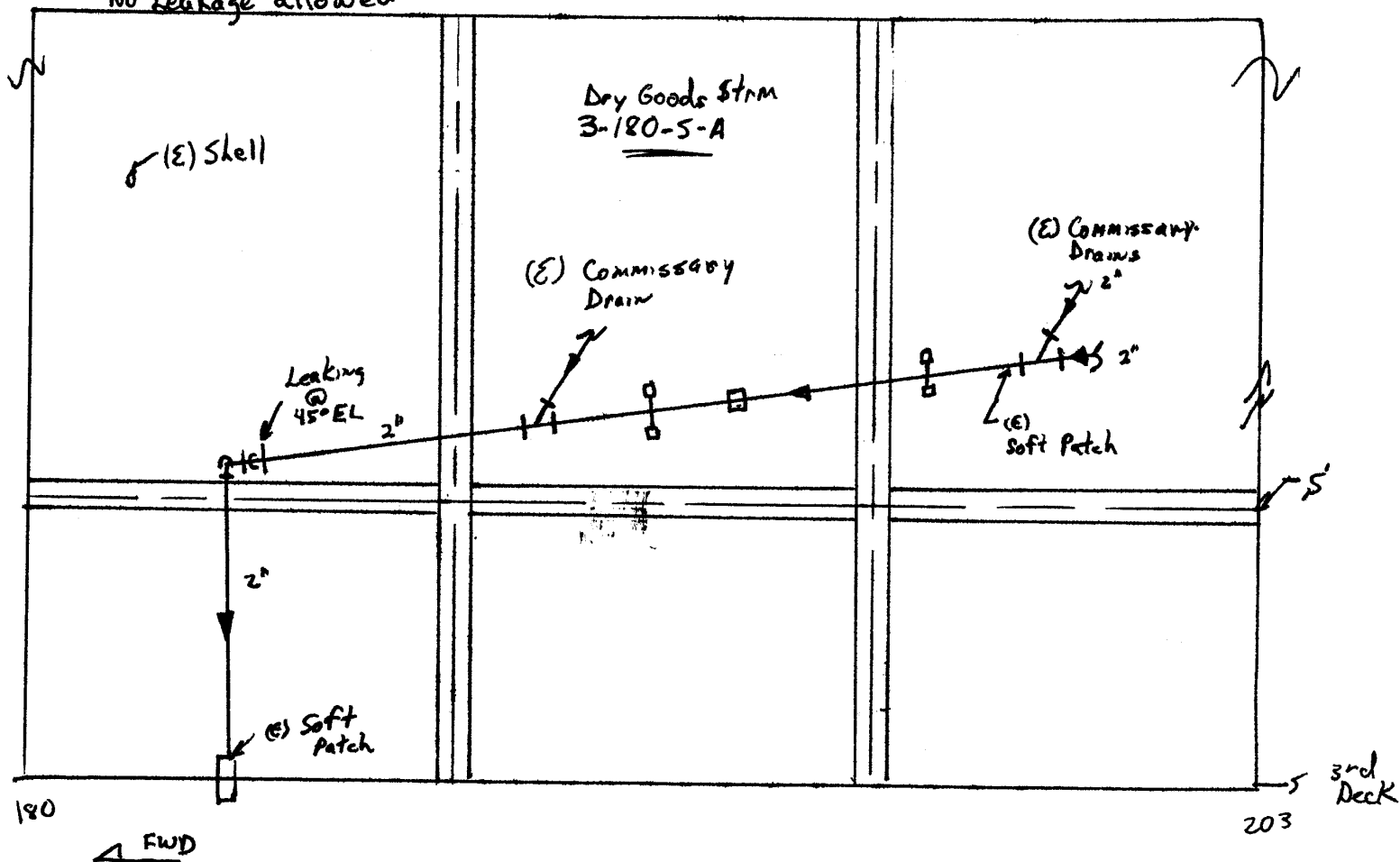
ITEM NUMBER				SHIP <b>USS KLA KRING FFG 42</b>											
<b>SYSTEM</b> <b>HULL STRUCTURE</b>			<b>ESWBS</b> <b>11021</b>		<b>EIC</b> <b>A301</b>		<b>APL</b> <b>N/A</b>		<b>RIC</b>						
<b>EQUIPMENT NAME</b> <b>SHELL &amp; SUPPORTING STRUCTURE</b>				<b>IDENT/SERIAL</b> <b>N/A</b>		<b>LOCATION</b> <b>3-328-0-A</b>		<b>WORK CENTER</b> <b>SS01</b>		<b>JSN</b>					
<b>EQUIPMENT STATUS</b>			<b>PROBLEM STATUS</b>			<b>CATEGORY</b>				<b>EOC</b>					
1. SAT - SATISFACTORY 2. UNSAT - UNSATISFACTORY 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD			1. C - CORRECTED* 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* 4. S - SHIPS FORCE* *UNCORRECTED PROBLEMS			1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. H - HARDWARE 4. D - DOWN* 5. L - LIMITED				<b>.9</b>					
<b>TYPE AVAILABILITY</b>		<b>WHEN TO BE ACCOMPLISHED</b>		<b>STATUS</b>		<b>CAUSE</b>		<b>DEFERRAL REASON</b>							
1. DEPOT 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL		1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. PRIOR TO NEXT DEPLOYMENT 4. DURING POST DEPLOYMENT AVAILABILITY		1. OPERATIONAL 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE OR SKILL 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. NORMAL WEAR AND TEAR 8. NOT APPLICABLE		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FO S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE							
<b>MAN HRS EXPENDED</b> <b>0001</b>		<b>MAN HRS REMAINING</b> <b>1</b>		<b>COMPLETED ACTION TAKEN</b>		<b>S/F MANHOURS</b>		<b>PRIORITY</b>							
<b>SAFETY HAZARD</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL				1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 2-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION				1. MANDATORY 2. ESSENTIAL 3. HIGHLY DESIRABLE 4. DESIRABLE							
DISCREPANCY DE Scription: <b>PER SEMAT I INSPECTION OF SUPPLY STRM (3-328-0-A), THE SHELL LAGGING</b>															
<b>WAS FOUND SATURATED AND THE SHELL AND STIFFENERS(S11-S15), STBDSIDE, FR 330-366 WERE</b>															
<b>FOUND CORRODED.</b>															
<b>RECOMMENDED REPAIRS</b>															
<b>REMOVE APPROX. 300 SF OF SATURATED SHELL INSULATION AND CORROSION EXPOSED BY</b>															
<b>REMOVALS. PRIME AND PRESERVE SHELL AND INSTALL LAGGING. PAINT LAGGING TO MATCH</b>															
<b>SURROUNDING AREAS.</b>															
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001, TPOC: D. SMITH /HUGHES, CDI</b>															
<b>CSMP SUMMARY</b> <b>SUPPLY STRM (3-328-0-A) SHELL LAGGING SATURATED</b>									<b>TEST # MRC 1102/1</b>						
<b>ROOT CAUSE/AMPLIFICATION</b> <b>H1</b>									<b>STEP #</b> <b>1.a</b>						
<b>SYSTEM LEVEL IMPACT</b>															
<b>PART NO.</b>				<b>NOMENCLATURE</b>				<b>QTY</b>		<b>NSN</b>		<b>COST</b>			
<b>FIRST CONTACT</b> <b>LEACH</b>			<b>RATE</b> <b>SK2</b>		<b>SECOND CONTACT</b> <b>DEBOLT</b>			<b>RATE</b> <b>SK1</b>		<b>PHONE</b>					
<b>BLUEPRINTS, TECH MANUALS, PLANS, ETC.</b>										<b>ON BOARD</b> <b>YES</b> <b>NO</b>					
<b>ASSESSOR / ACT / TECH ID#</b> <b>SPORT 221/ D. SMITH/ HUGHES, CDI</b>								<b>TD</b>		<b>TL</b>		<b>LOGISTICIAN</b>		<b>TSP</b>	

# MATERIAL ASSESSMENT FORM

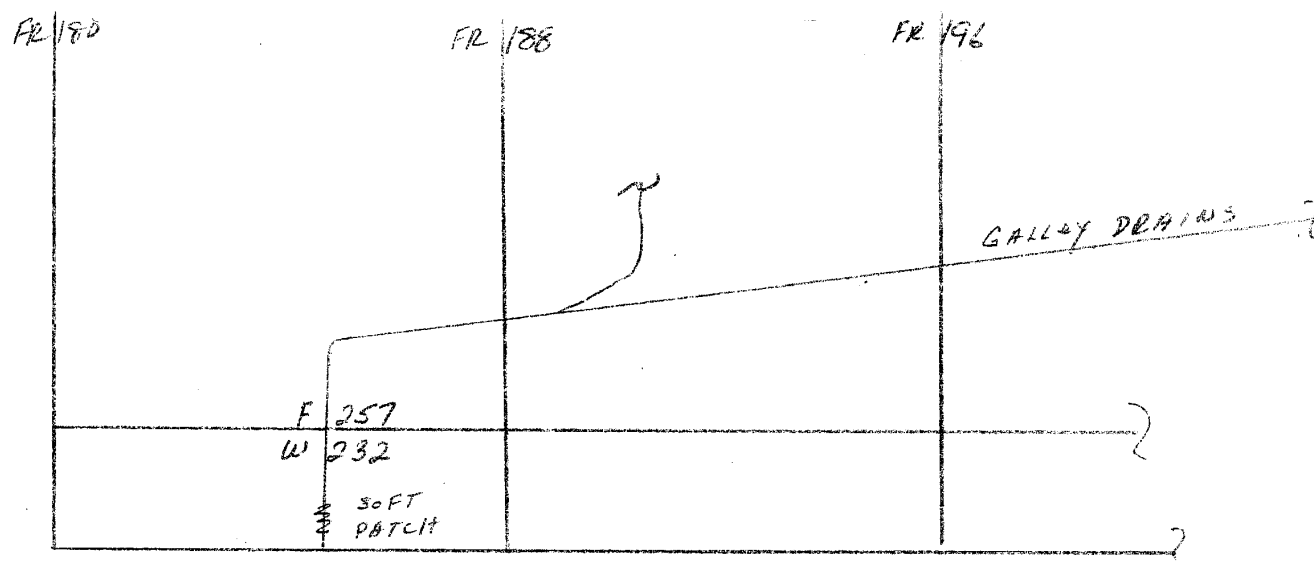
ITEM NUMBER				SHIP <b>USS KLA KRING FFG 42</b>											
SYSTEM <b>COMMISSARY DRAIN</b>			ESWBS <b>59311</b>		EIC <b>A301</b>		APL <b>N/A</b>		RIC						
EQUIPMENT NAME <b>COMMISSARY DRAIN PIPING</b>				IDENT/SERIAL <b>N/A</b>		LOCATION <b>3-180-5-A</b>		WORK CENTER <b>SS02</b>		JSN					
EQUIPMENT STATUS			PROBLEM STATUS			CATEGORY				EOC					
1. SAT - SATISFACTORY 2. UNSAT - UNSATISFACTORY 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD			1. C - CORRECTED* 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* 4. S - SHIPS FORCE* *UNCORRECTED PROBLEMS			1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. H - HARDWARE 4. D - DOWN* 5. L - LIMITED				<b>.9</b>					
TYPE AVAILABILITY		WHEN TO BE ACCOMPLISHED		STATUS		CAUSE		DEFERRAL REASON							
1. DEPOT 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL		1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. PRIOR TO NEXT DEPLOYMENT 4. DURING POST DEPLOYMENT AVAILABILITY		1. OPERATIONAL 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE OR SKILL 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. NORMAL WEAR AND TEAR 8. NOT APPLICABLE		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FO S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE							
MAN HRS EXPENDED <b>0001</b>		MAN HRS REMAINING <b>1</b>		COMPLETED ACTION TAKEN		S/F MANHOURS		PRIORITY							
<b>SAFETY HAZARD</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL				1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 2-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION				1. MANDATORY 2. ESSENTIAL 3. HIGHLY DESIRABLE 4. DESIRABLE							
DISCREPANCY DE Scription: <b>PER SEMAT I INSPECTION OF DRY GOODS STRM (3-180-5-A), THE COMMISSARY</b>															
<b>DRAIN PIPING FROM THE GALLEY (2-180-1-A) IS LEAKING AND DAMAGING THE SHELL LAGGING</b>															
<b>AND CORRODING THE SHELL.</b>															
<b>RECOMMENDED REPAIRS</b>															
<b>REMOVE THE (2) EXISTING SOFT PATCHES FROM THE PIPING AND THE 45-DEGREE ELL. REPAIR</b>															
<b>THE PIPING AND REPLACE THE 45-DEGREE ELL.</b>															
<b>OPERATIONALLY TEST REPAIRED PIPING. ALLOWABLE LEAKAGE: NONE</b>															
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001, TPOC: D. SMITH /HUGHES, CDI</b>															
<b>CSMP SUMMARY</b> <b>DRY GOODS STRM (3-180-5-A) COMMISSARY DRAIN PIPING LEAKING</b>									<b>TEST # MRC 1102/1</b>						
<b>ROOT CAUSE/AMPLIFICATION H1</b>									<b>STEP # 1.a</b>						
<b>SYSTEM LEVEL IMPACT</b>															
<b>PART NO.</b>				<b>NOMENCLATURE</b>				<b>QTY</b>		<b>NSN</b>		<b>COST</b>			
<b>FIRST CONTACT</b> <b>SMITH</b>			<b>RATE</b> <b>MS2</b>		<b>SECOND CONTACT</b> <b>WOODS</b>			<b>RATE</b> <b>MS1</b>		<b>PHONE</b>					
<b>BLUEPRINTS, TECH MANUALS, PLANS, ETC.</b>										<b>ON BOARD</b> <b>YES</b> <b>NO</b>					
<b>ASSESSOR / ACT / TECH ID#</b> <b>SPORT 221/ D. SMITH/ HUGHES, CDI</b>								<b>TD</b>		<b>TL</b>		<b>LOGISTICIAN</b>		<b>TSP</b>	

- 1 Remove and Repair (E) Soft patch areas
- 2 Remove 45° Ell and visually inspect piping
- 3 Install new 45° Ell
- 4 Test new/repaired piping by operational test  
No Leakage allowed

5 Clean Preserve and Stencil piping



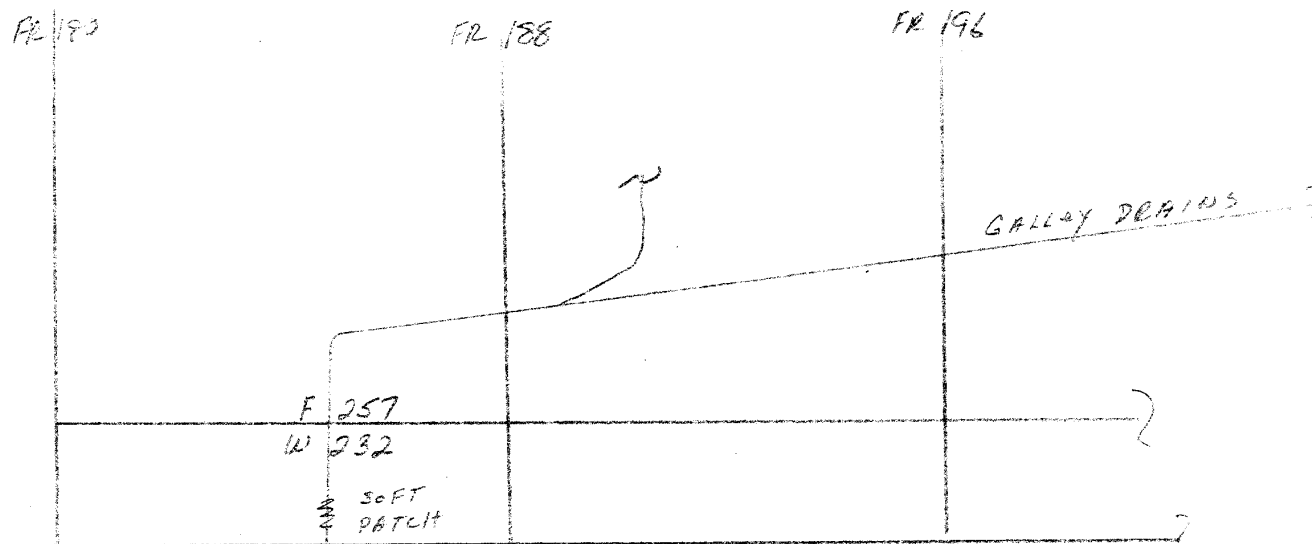
Partial Elevation  
Feng outbd to stbd  
NTS



3-180-5A  
 COMMISARY STORE ROOM

USS KLAKRING FFG 42

FJLARK, J. In Charge  
 QED SYS INC  
 4/4/81



3-180-5A  
COMMISARY STORE ROOM

USS KLARING FFG 42

FJLARK, J. L. R. K.  
DESIGNING  
4/14/31



Leaking drain line, Fr 186, stbd. At the deck, a soft patch is visible

# **SHELL CONDITION ASSESSMENT SURVEY**

## **No. 2 AUXILIARY MACHINERY ROOM**

### **(5-212-0-E)**

1. 2K's submitted:
  - a. xxxx-xxxx – Shell and structure preservation in way of lagging.
  - b. xxxx-xxxx - Stiffener replacement.
2. Corrosion noted in bilge areas is covered under Work Item 631-11-001 of availability 3/01.
3. Random UT's of corroded stiffeners and shell port and stbd, Fr 212-226, U/L & L/L indicates corrosion is surface deterioration except as noted in the 2K's and UT results.



# MATERIAL ASSESSMENT FORM

ITEM NUMBER				SHIP <b>USS KLA KRING FFG 42</b>											
<b>SYSTEM</b> <b>HULL STRUCTURE</b>			<b>ESWBS</b> <b>11021</b>		<b>EIC</b> <b>A301</b>		<b>APL</b> <b>N/A</b>		<b>RIC</b>						
<b>EQUIPMENT NAME</b> <b>SHELL&amp;SUPPORTING STRUCTURE</b>				<b>IDENT/SERIAL</b> <b>N/A</b>		<b>LOCATION</b> <b>5-212-0-E</b>		<b>WORK CENTER</b> <b>EM02</b>		<b>JSN</b>					
<b>EQUIPMENT STATUS</b>			<b>PROBLEM STATUS</b>			<b>CATEGORY</b>				<b>EOC</b>					
1. SAT - SATISFACTORY 2. UNSAT - UNSATISFACTORY 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD			1. C - CORRECTED* 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* 4. S - SHIPS FORCE* *UNCORRECTED PROBLEMS			1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. H - HARDWARE 4. D - DOWN* 5. L - LIMITED				<b>.5</b>					
<b>TYPE AVAILABILITY</b>		<b>WHEN TO BE ACCOMPLISHED</b>		<b>STATUS</b>		<b>CAUSE</b>		<b>DEFERRAL REASON</b>							
1. DEPOT 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL		1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. PRIOR TO NEXT DEPLOYMENT 4. DURING POST DEPLOYMENT AVAILABILITY		1. OPERATIONAL 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE OR SKILL 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. NORMAL WEAR AND TEAR 8. NOT APPLICABLE		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FO S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE							
<b>MAN HRS EXPENDED</b> <b>0001</b>		<b>MAN HRS REMAINING</b> <b>1</b>		<b>COMPLETED ACTION TAKEN</b>		<b>S/F MANHOURS</b>		<b>PRIORITY</b>							
<b>SAFETY HAZARD</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL				1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 2-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION				1. MANDATORY 2. ESSENTIAL 3. HIGHLY DESIRABLE 4. DESIRABLE							
DISCREPANCY DESCRIPTION: <b>PER SEMAT I INSPECTION OF AMR 2 (5-212-0-E), STIFFENERS P9(6"X6 1/2" T)</b>															
<b>FROM FR 214-221 &amp; P10 (6"X6 1/2" T) FROM FR 215-219 WERE FOUND CORRODED. UT READINGS</b>															
<b>4/5/01 INDICATE STIFFENERS ARE BELOW MINIMUM TOLERANCES.</b>															
<b>RECOMMENDED REPAIRS</b>															
<b>CROP OUT AND REPLACE APPROX 11 LF OF (6"X 6 1/2" T) AS INDICATED ABOVE. PRIME ALL</b>															
<b>NEW AND DISTURBED SURFACES. PAINT TO MATCH SURROUNDING AREAS.</b>															
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001, TPOC: D. SMITH /HUGHES, CDI</b>															
<b>CSMP SUMMARY</b> <b>AMR 2 (5-212-0-E) STIFFENERS CORRODED</b>								<b>TEST # MRC 1102/1</b>							
<b>ROOT CAUSE/AMPLIFICATION</b> <b>H1</b>								<b>STEP #</b> <b>1.a</b>							
<b>SYSTEM LEVEL IMPACT</b>															
<b>PART NO.</b>				<b>NOMENCLATURE</b>				<b>QTY</b>		<b>NSN</b>		<b>COST</b>			
<b>FIRST CONTACT</b> <b>FERRARA</b>			<b>RATE</b> <b>EN2</b>		<b>SECOND CONTACT</b> <b>DALTON</b>			<b>RATE</b> <b>ENC</b>		<b>PHONE</b>					
<b>BLUEPRINTS, TECH MANUALS, PLANS, ETC.</b>										<b>ON BOARD</b> <b>YES</b> <b>NO</b>					
<b>ASSESSOR / ACT / TECH ID#</b> <b>SPORT 221/ D. SMITH/ HUGHES, CDI</b>								<b>TD</b>		<b>TL</b>		<b>LOGISTICIAN</b>		<b>TSP</b>	

# MATERIAL ASSESSMENT FORM

ITEM NUMBER				SHIP <b>USS KLA KRING FFG 42</b>											
<b>SYSTEM</b> <b>HULL STRUCTURE</b>			<b>ESWBS</b> <b>11021</b>		<b>EIC</b> <b>A301</b>		<b>APL</b> <b>N/A</b>		<b>RIC</b>						
<b>EQUIPMENT NAME</b> <b>SHELL&amp;SUPPORTING STRUCTURE</b>				<b>IDENT/SERIAL</b> <b>N/A</b>		<b>LOCATION</b> <b>5-212-0-E</b>		<b>WORK CENTER</b> <b>EMO2</b>		<b>JSN</b>					
<b>EQUIPMENT STATUS</b>			<b>PROBLEM STATUS</b>			<b>CATEGORY</b>				<b>EOC</b>					
1. SAT - SATISFACTORY 2. UNSAT - UNSATISFACTORY 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD			1. C - CORRECTED* 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* 4. S - SHIPS FORCE* *UNCORRECTED PROBLEMS			1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. H - HARDWARE 4. D - DOWN* 5. L - LIMITED				<b>.9</b>					
<b>TYPE AVAILABILITY</b>		<b>WHEN TO BE ACCOMPLISHED</b>		<b>STATUS</b>		<b>CAUSE</b>		<b>DEFERRAL REASON</b>							
1. DEPOT 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL		1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. PRIOR TO NEXT DEPLOYMENT 4. DURING POST DEPLOYMENT AVAILABILITY <b>30MAR02</b>		1. OPERATIONAL 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE OR SKILL 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. NORMAL WEAR AND TEAR 8. NOT APPLICABLE		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FO S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE							
<b>MAN HRS EXPENDED</b> <b>0001</b>		<b>MAN HRS REMAINING</b> <b>1</b>		<b>COMPLETED ACTION TAKEN</b>		<b>S/F MANHOURS</b>		<b>PRIORITY</b>							
<b>SAFETY HAZARD</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL				1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 2-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION				1. MANDATORY 2. ESSENTIAL 3. HIGHLY DESIRABLE 4. DESIRABLE							
DISCREPANCY DE Scription: <b>PER SEMAT I INSPECTION OF AMR 2 (5-212-0-E), THE SHELL LAGGING</b>															
<b>STBDSIDE, FR 212-226, FROM THE BOTTOM EDGE OF THE LAGGING TO 1' ABOVE THE U/L GRATING &amp;</b>															
<b>PORTSIDE, FR 212-226, FROM THE BOTTOM EDGE OF THE LAGGING TO 1' ABOVE THE U/L GRATING</b>															
<b>WAS FOUND SATURATED.</b>															
<b>RECOMMENDED REPAIRS</b>															
<b>REMOVE APPROX. 225 SF OF SATURATED SHELL INSULATION. REMOVE CORROSION EXPOSED BY</b>															
<b>INSULATION REMOVALS. PRIME AND PRESERVE SHELL AND STRUCTURE AND INSTALL NEW</b>															
<b>INSULATION. PAINT NEW INSULATION TO MATCH SURROUNDING AREAS.</b>															
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001, TPOC: D. SMITH /HUGHES, CDI</b>															
<b>CSMP SUMMARY</b> <b>AMR 2 (5-212-0-E) STIFF &amp; SHELL LAGGING SATURATED</b>								<b>TEST # MRC 1102/1</b>							
<b>ROOT CAUSE/AMPLIFICATION H1</b>								<b>STEP # 1.a</b>							
<b>SYSTEM LEVEL IMPACT</b>															
<b>PART NO.</b>				<b>NOMENCLATURE</b>				<b>QTY</b>		<b>NSN</b>		<b>COST</b>			
<b>FIRST CONTACT</b> <b>FERRARA</b>				<b>RATE</b> <b>EN2</b>		<b>SECOND CONTACT</b> <b>DALTON</b>				<b>RATE</b> <b>ENC</b>		<b>PHONE</b>			
<b>BLUEPRINTS, TECH MANUALS, PLANS, ETC.</b>										<b>ON BOARD</b> <b>YES</b>		<b>NO</b>			
<b>ASSESSOR / ACT / TECH ID# SPORT 221/ D. SMITH/ HUGHES, CDI</b>								<b>TD</b>		<b>TL</b>		<b>LOGISTICIAN</b>		<b>TSP</b>	

FR 220

6P 212  
15 STRINGS

14

13

12

2000-01-01

15

9

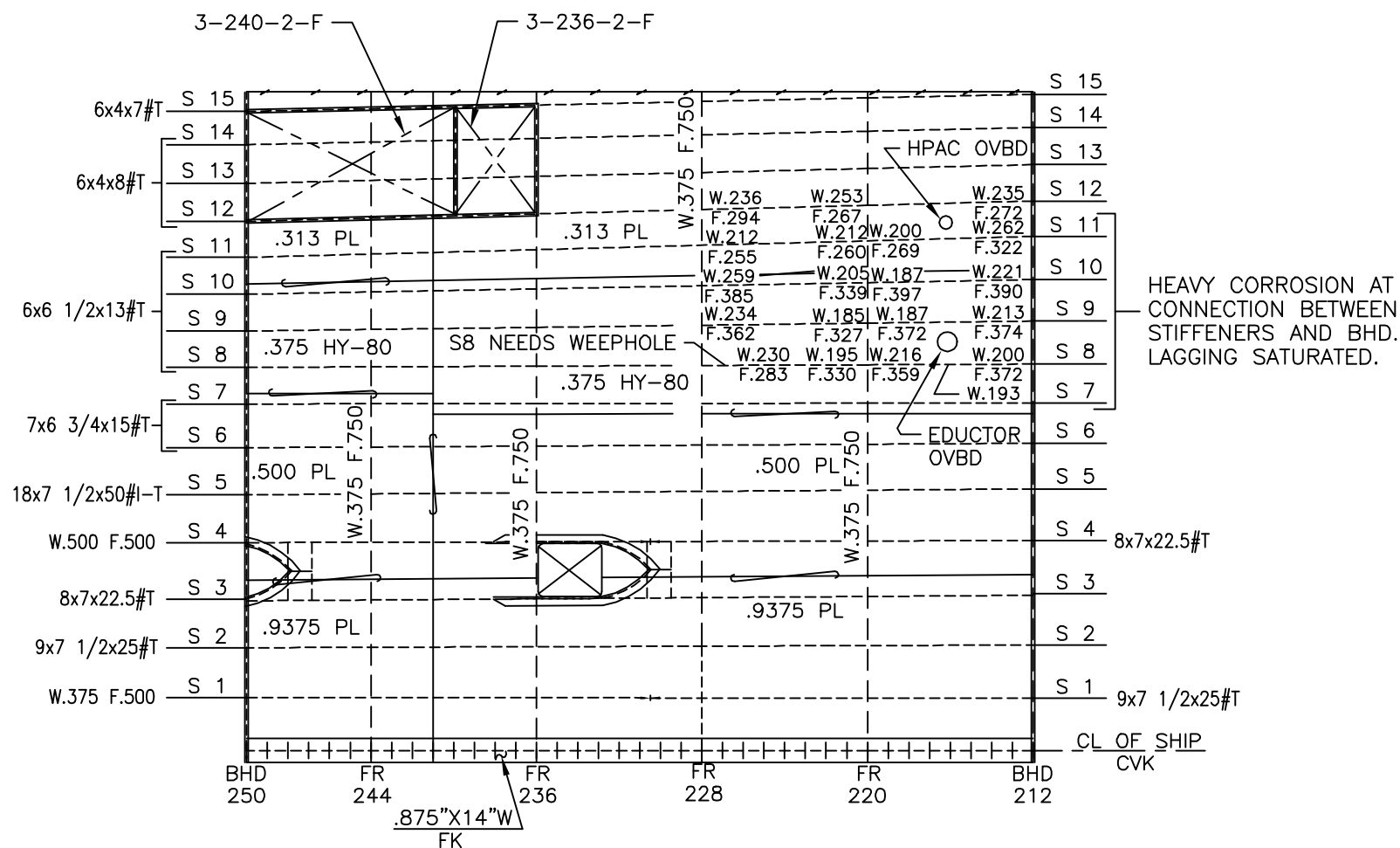
STBD

Design	mpg
1237	196
1400	1320

NR 2 A M R  
5-212-0-E

USS KLARRING FFG 42

FG La Roche; LA Roche  
 QED 3/3/01  
 4/4/01



FFG 42 UT SURVEY 4/4/01. PORTSIDE, AUXILIARY MACHINERY ROOM NO. 2 (5-212-0-E)

FFG-42 # 2 Aux. Machinery Room (5-212-0-E)



Seawater overboard, Fr 216, U/L. Shell is not thinned below specs. This area should not be lagged.



Stiffener P8, Fr 218. UT indicates the web of the stiffener is very thin. A weep hole in this area would reduce the corrosion.

FFG-42 # 2 Aux. Machinery Room (5-212-0-E)



Corrosion at the intersection of BHD 212, port shell and P9. Areas look bad, but UT's indicate they are within specs. Another place that should not be lagged.



The flange and web of P8 at Fr 218 are very thin.



FPG 42 #2 Aux. Machinery Room (5-212-0-E)



Heavy corrosion behind lagging at the connection between P9, the shell and BHD 212.  
UT readings indicate thinned areas but all within specs



Similar corrosion on P9 at Fr 226. UT's indicate this is mainly surface corrosion at this time.

FFG-42 # 2 Aux. Machinery Room (5-212-0-E)



Corrosion, portside, outboard of the HPAC, Fr 218, just below the U/L grating.



Additional view of same area, showing corrosion in the web of P9.



FFG-42 # 2 Aux. Machinery Room (5-212-0-E)



Corrosion at the connection between the shell and the Transverse bhd at Fr 212. Bhd is thinned but within specs.

# **SHELL CONDITION ASSESSMENT SURVEY MAIN MACHINERY ROOM (5-250-0-E)**

- 1. 2K's submitted:**
  - a. EM01-xxxx – Shell and structure preservation in way of lagging.**
  - b. EM01-xxxx - Stiffener replacement.**
- 2. Corrosion noted in bilge areas is covered under Work Item 631-11-001 of availability 3/01.**
- 3. UT indicates thinned shell in the areas surrounding the transverse weld seam at Fr 271 portside and around the Prairie masker cooler seawater ovbd at Fr 267.**
- 4. Random UT's of corroded stiffeners and shell port and stbd, Fr 250 –264, indicates corrosion is surface deterioration except as noted on 2k's and UT readings.**


# MATERIAL ASSESSMENT FORM

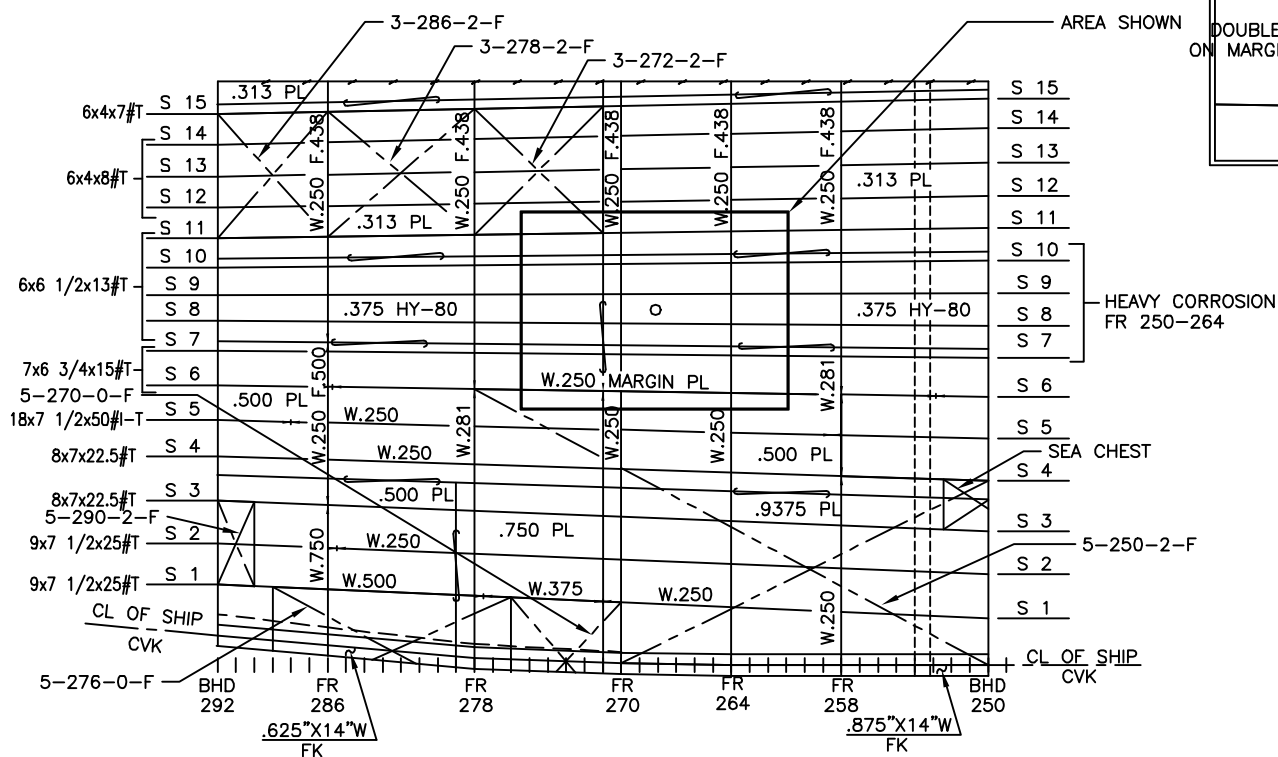
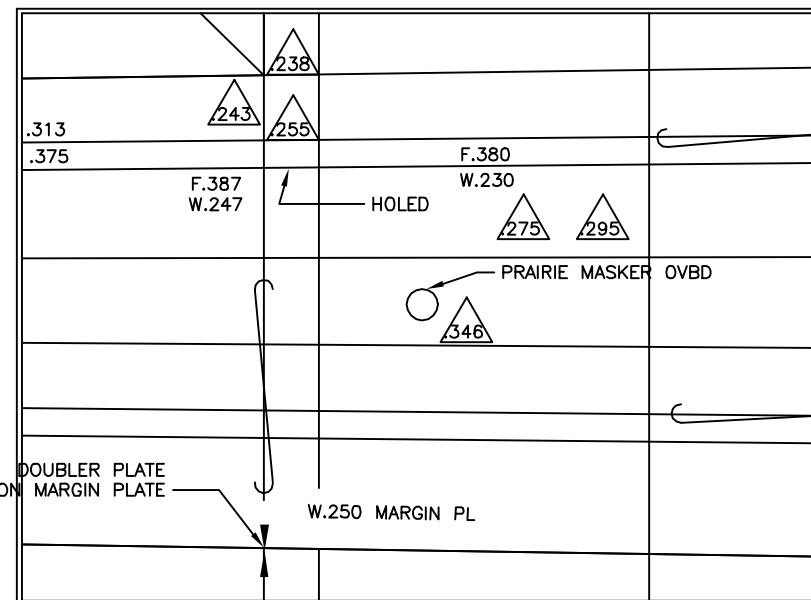
ITEM NUMBER				SHIP <b>USS KLA KRING FFG 42</b>											
<b>SYSTEM</b> <b>HULL STRUCTURE</b>			<b>ESWBS</b> <b>11021</b>		<b>EIC</b> <b>A301</b>		<b>APL</b> <b>N/A</b>		<b>RIC</b>						
<b>EQUIPMENT NAME</b> <b>SHELL&amp;SUPPORTING STRUCTURE</b>				<b>IDENT/SERIAL</b> <b>N/A</b>		<b>LOCATION</b> <b>5-250-0-E</b>		<b>WORK CENTER</b> <b>EM01</b>		<b>JSN</b>					
<b>EQUIPMENT STATUS</b>			<b>PROBLEM STATUS</b>			<b>CATEGORY</b>			<b>EOC</b>						
1. SAT - SATISFACTORY 2. UNSAT - UNSATISFACTORY 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD			1. C - CORRECTED* 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* 4. S - SHIPS FORCE* *UNCORRECTED PROBLEMS			1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. H - HARDWARE 4. D - DOWN* 5. L - LIMITED			.5						
<b>TYPE AVAILABILITY</b>		<b>WHEN TO BE ACCOMPLISHED</b>		<b>STATUS</b>		<b>CAUSE</b>		<b>DEFERRAL REASON</b>							
1. DEPOT 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL		1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. PRIOR TO NEXT DEPLOYMENT 4. DURING POST DEPLOYMENT AVAILABILITY		1. OPERATIONAL 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE OR SKILL 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. NORMAL WEAR AND TEAR 8. NOT APPLICABLE		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FO S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE							
<b>MAN HRS EXPENDED</b> <b>0001</b>		<b>MAN HRS REMAINING</b> <b>1</b>		<b>COMPLETED ACTION TAKEN</b>		<b>S/F MANHOURS</b>		<b>PRIORITY</b>							
<b>SAFETY HAZARD</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL				1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 2-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION				1. MANDATORY 2. ESSENTIAL 3. HIGHLY DESIRABLE 4. DESIRABLE							
DISCREPANCY DESCRIPTION: <b>PER SEMAT I INSPECTION OF ENGINE ROOM (5-250-0-E), STIFFENER</b>															
<b>P9 (6"X 6 1/2" T) FROM FR 270-272 WAS FOUND CORRODED AND HOLED. UT READINGS 4/4/01</b>															
<b>INDICATE STIFFENER IS BELOW MINIMUM TOLERANCES.</b>															
<b>RECOMMENDED REPAIRS</b>															
<b>CROP OUT AND REPLACE APPROXIMATELY 2 LF OF (6"X 6 1/2" T) AS INDICATED ABOVE.</b>															
<b>PRIME AND PAINT ALL NEW AND DISTURBED SURFACES TO MATCH SURROUNDING AREAS.</b>															
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001, TPOC: D. SMITH /HUGHES, CDI</b>															
<b>CSMP SUMMARY</b> <b>ENGINE ROOM (5-250-0-E) STIFFENERS CORRODED</b>									<b>TEST # MRC 1102/1</b>						
<b>ROOT CAUSE/AMPLIFICATION</b> <b>H1</b>									<b>STEP #</b> <b>1.a</b>						
<b>SYSTEM LEVEL IMPACT</b>															
<b>PART NO.</b>				<b>NOMENCLATURE</b>				<b>QTY</b>		<b>NSN</b>		<b>COST</b>			
<b>FIRST CONTACT</b> <b>HOAGLUND</b>				<b>RATE</b> <b>GSE2</b>		<b>SECOND CONTACT</b> <b>MATUS</b>			<b>RATE</b> <b>GSM2</b>		<b>PHONE</b>				
<b>BLUEPRINTS, TECH MANUALS, PLANS, ETC.</b>										<b>ON BOARD</b> <b>YES</b> <b>NO</b>					
<b>ASSESSOR / ACT / TECH ID#</b> <b>SPORT 221/ D. SMITH/ HUGHES, CDI</b>								<b>TD</b>		<b>TL</b>		<b>LOGISTICIAN</b>		<b>TSP</b>	

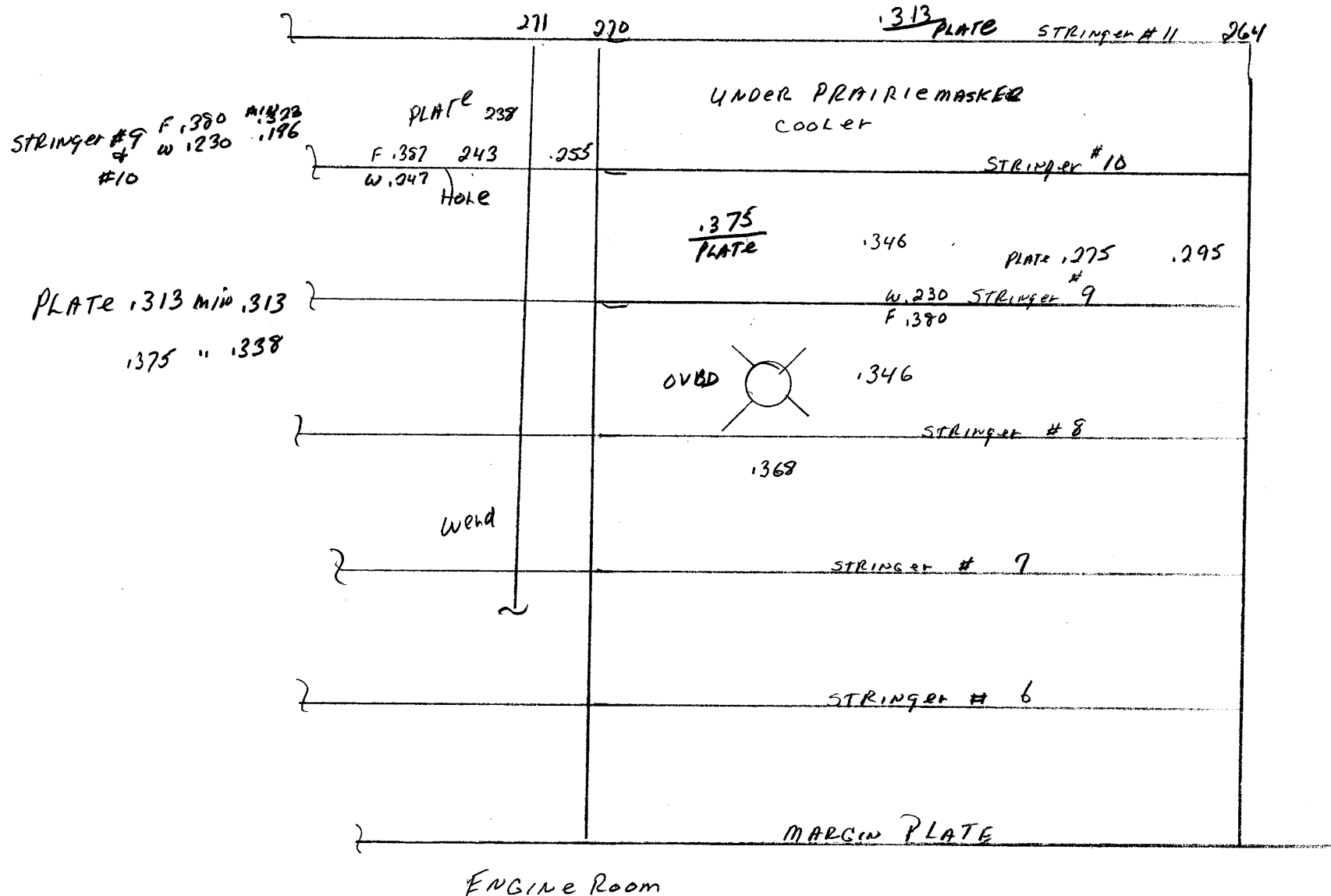
# MATERIAL ASSESSMENT FORM

ITEM NUMBER				SHIP <b>USS KLA KRING FFG 42</b>											
<b>SYSTEM</b> <b>HULL STRUCTURE</b>			<b>ESWBS</b> <b>11021</b>		<b>EIC</b> <b>A301</b>		<b>APL</b> <b>N/A</b>		<b>RIC</b>						
<b>EQUIPMENT NAME</b> <b>SHELL&amp;SUPPORTING STRUCTURE</b>				<b>IDENT/SERIAL</b> <b>N/A</b>		<b>LOCATION</b> <b>5-250-0-E</b>		<b>WORK CENTER</b> <b>EMO1</b>		<b>JSN</b>					
<b>EQUIPMENT STATUS</b>			<b>PROBLEM STATUS</b>			<b>CATEGORY</b>				<b>EOC</b>					
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<b>TYPE AVAILABILITY</b>		<b>WHEN TO BE ACCOMPLISHED</b>		<b>STATUS</b>		<b>CAUSE</b>		<b>DEFERRAL REASON</b>							
1. DEPOT 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL		1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. PRIOR TO NEXT DEPLOYMENT 4. DURING POST DEPLOYMENT AVAILABILITY		1. OPERATIONAL 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE OR SKILL 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. NORMAL WEAR AND TEAR 8. NOT APPLICABLE		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FO S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE							
<b>MAN HRS EXPENDED</b> <b>0001</b>		<b>MAN HRS REMAINING</b> <b>1</b>		<b>COMPLETED ACTION TAKEN</b>				<b>S/F MANHOURS</b>		<b>PRIORITY</b>					
<b>SAFETY HAZARD</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL				1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 2-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION				1. MANDATORY 2. ESSENTIAL 3. HIGHLY DESIRABLE 4. DESIRABLE							
DISCREPANCY DE Scription: <b>PER SEMAT I INSPECTION OF ENGINE ROOM (5-250-0-E), THE SHELL LAGGING</b>															
<b>STBDSIDE, FR 250-272, FROM THE BOTTOM EDGE OF THE LAGGING TO 6' ABOVE THE L/L GRATING &amp;</b>															
<b>PORTSIDE, FR 250-268, FROM THE BOTTOM EDGE OF THE LAGGING TO 4' ABOVE THE L/L GRATING</b>															
<b>WAS FOUND SATURATED.</b>															
<b>RECOMMENDED REPAIRS</b>															
<b>REMOVE APPROX. 400 SF OF SATURATED SHELL INSULATION. REMOVE CORROSION EXPOSED BY</b>															
<b>INSULATION REMOVALS. PRIME AND PRESERVE SHELL AND STRUCTURE AND INSTALL NEW</b>															
<b>INSULATION. PAINT NEW INSULATION TO MATCH SURROUNDING AREAS.</b>															
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001, TPOC: D. SMITH /HUGHES, CDI</b>															
<b>CSMP SUMMARY</b> <b>ENGINE ROOM (5-250-0-E) STIFF &amp; SHELL LAGGING SATURATED</b>									<b>TEST # MRC 1102/1</b>						
<b>ROOT CAUSE/AMPLIFICATION H1</b>									<b>STEP # 1.a</b>						
<b>SYSTEM LEVEL IMPACT</b>															
<b>PART NO.</b>				<b>NOMENCLATURE</b>				<b>QTY</b>		<b>NSN</b>		<b>COST</b>			
<b>FIRST CONTACT</b> <b>HOAGLUND</b>			<b>RATE</b> <b>GSE2</b>		<b>SECOND CONTACT</b> <b>MATUS</b>			<b>RATE</b> <b>GSM2</b>		<b>PHONE</b>					
<b>BLUEPRINTS, TECH MANUALS, PLANS, ETC.</b>										<b>ON BOARD</b> <b>YES NO</b>					
<b>ASSESSOR / ACT / TECH ID# SPORT 221/ D. SMITH/ HUGHES, CDI</b>								<b>TD</b>		<b>TL</b>		<b>LOGISTICIAN</b>		<b>TSP</b>	

# UT LEGEND

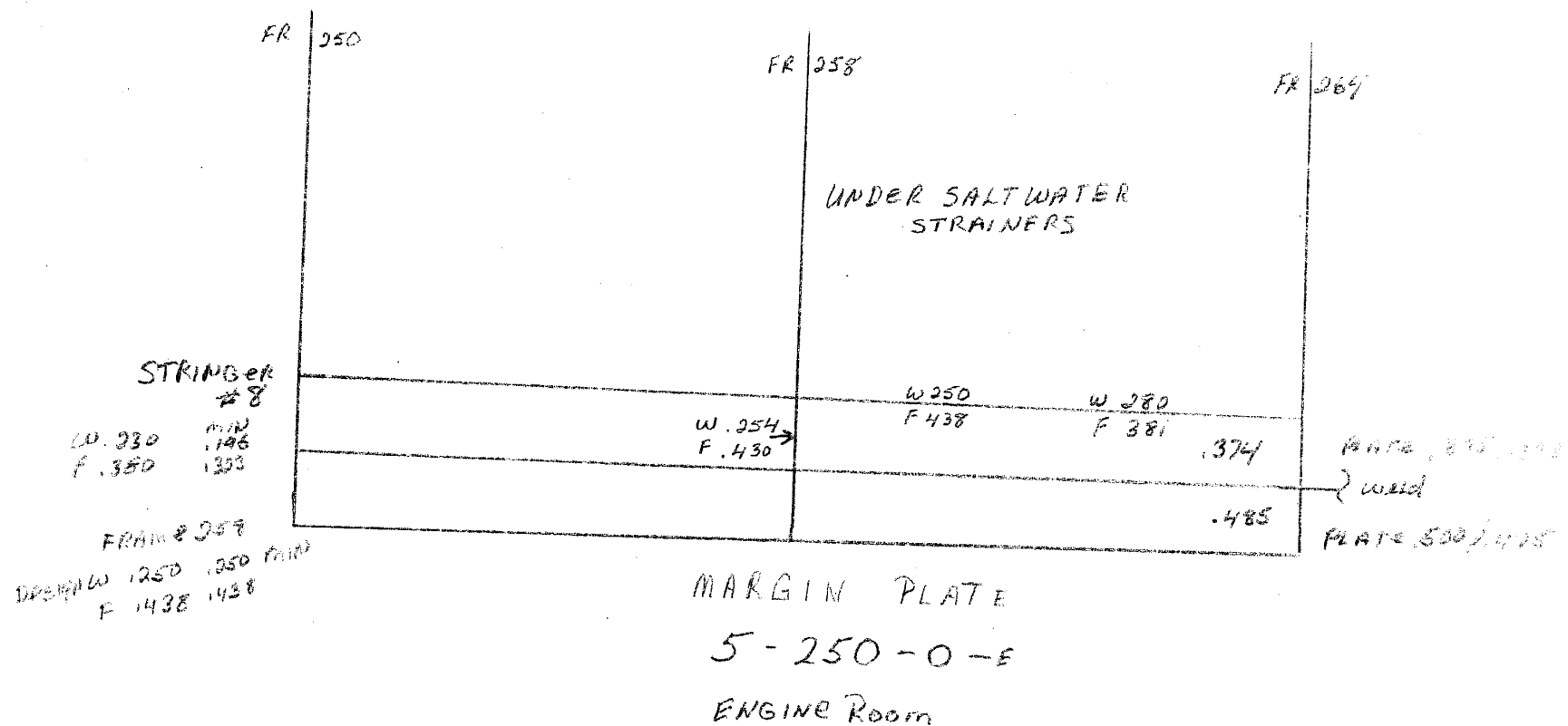
	SHELL THICKNESS
F.387	FLANGE THICKNESS
W.247	WEB THICKNESS





USS KLARING FFG 42

F J LAROCK, J LAROCK  
 QED SYS INC  
 4/3/01

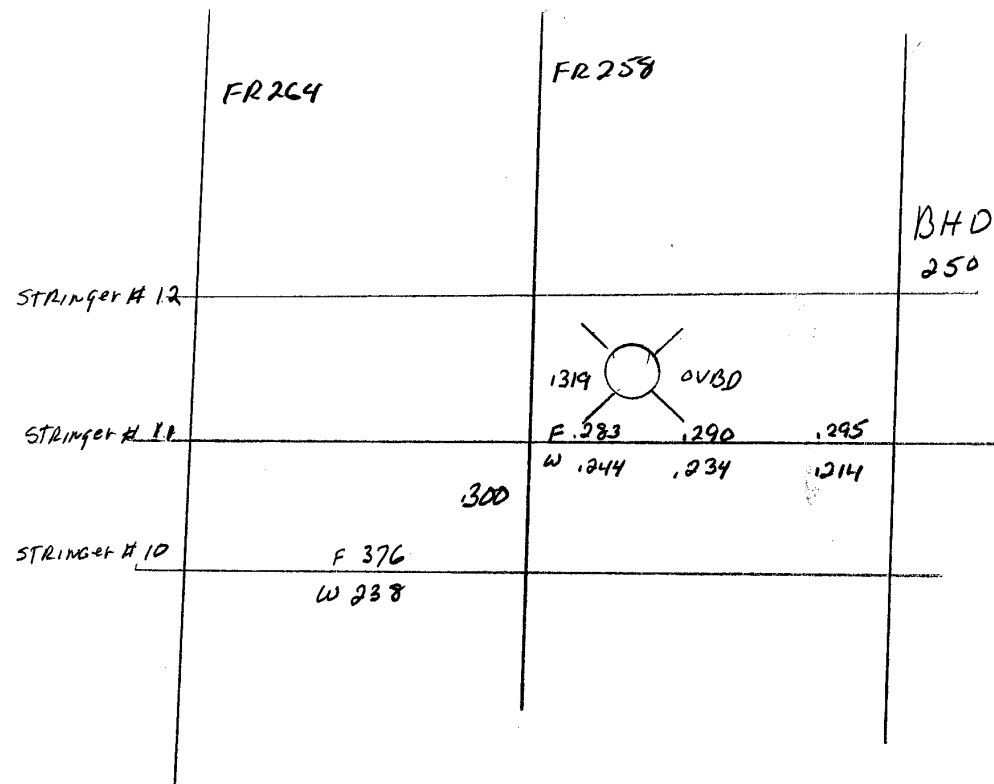


FIJAROCK, J LAROCK  
QED SYS INC.  
4/4/61

USS KLAKRING FFG42

STRINGER # 10 W .230 MIN .138  
 " " F 1380 1228

PLATE .313 MIN .313

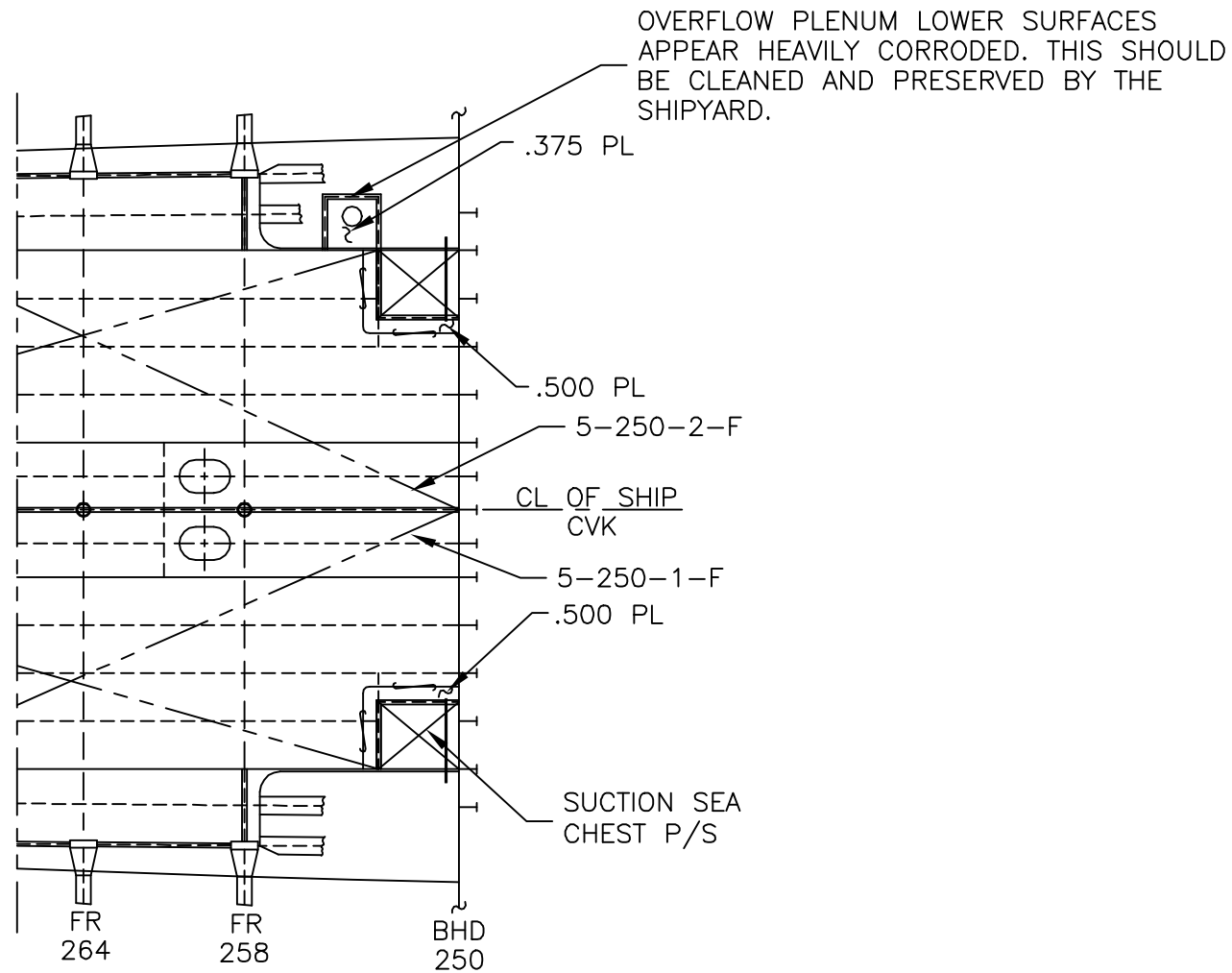


ENGINE ROOM PORT SIDE

USS KLARKING FFG 42

FJ LAROCK, J LAROCK  
 QED SYS INC.  
 4/3/01





NON-STRUCTURAL CORROSION NOTED  
FFG 42 MAIN MACHINERY ROOM (5-250-0-E)

FFG-42 Main Engine Room (5-250-0-E)



This level of corrosion was common on all L/L areas where lagging was opened for inspection.



Areas of shell in way of weep holes below overboards was typically found with heavy corrosion

FFG-42 Main Engine Room (5-250-0-E) side



Lagging saturated above the bilge level, Fr 260, stbd side.



Extreme corrosion behind lagging in way of lube oil cooler ovbd, Fr 272 stbd side.

FFG-42 Main Engine Room (5-250-0-E)



Corrosion behind lagging that otherwise appears satisfactory.



Lagging showing signs of saturation



FFG-42 Main Engine Room (5-250-0-E)



Corrosion under Prairie Masker cooler, around overboard. Some thin plate was determined by UT. See UT grid.



Additional view of same area

FFG-42 Main Engine Room (5-250-0-E)



Arrow indicates what appears to be a doubler plate on the keel side of the margin plate. Anomaly is at Fr 271, port side. Note the heavy corrosion of the area. Shipsforce indicated the bilges were to be cleaned and preserved by the shipyard.



Closer view of doubler plate. No action needs to be taken.

FFG-42 Main Engine Room (5-250-0-E)



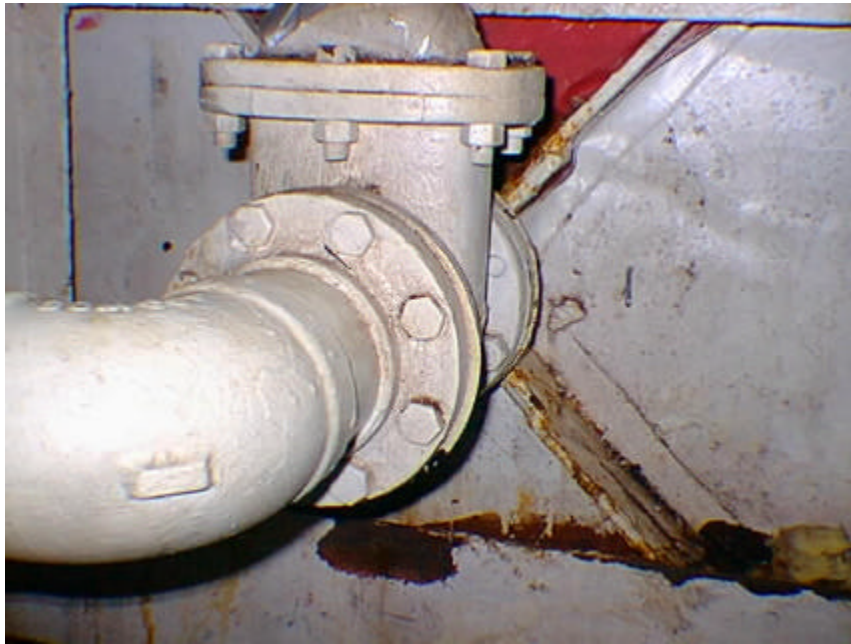
Area under Prairie Masker cooler, Fr 268, port side L/L. Seawater leakage and drains have caused localized shell thinning. See UT grids.



Closer view of areas defined above.



FFG-42 Main Engine Room (5-250-0-E)



Area around eductor overboard, Fr 256, port side, L/L. Structure is satisfactory, but saturated lagging has caused considerable corrosion.



Different view of areas defined above



# **SHELL CONDITION ASSESSMENT SURVEY**

## **No. 3 AUXILIARY MACHINERY ROOM**

### **(5-292-0-E)**

- 1. No 2K's submitted**
- 2. Corrosion noted in bilge areas is covered under SEMAT Structural assessment JSN's. Ships force is spot cleaning and painting bilge areas also.**
- 3. Random UT's of corroded stiffeners and shell around the stern tube, Fr 326 L/L indicate corrosion is surface deterioration.**

BHD  
328

FR  
324

FR  
316

BOTTOM SHELL A STRAKE  
1500 MIN .475

.438

.434

SHAFT → FWD

FR316

DESIGN 0.250  
MIN ALLOW 0.250

HOLES IN  
DEEP WELL

SHAFT

.230

USS KLAK RING FFG-42

FJ LAROCK, J LAROCK  
QED SYS INC  
4/3/01

# **SHELL CONDITION ASSESSMENT SURVEY SUPPLY ISSUE STOREROOM (3-328-0-A)**

- 1. 2K's submitted:**
  - a. xxxx-xxxx – Shell and structure UT.**
  - b. xxxx-xxxx – Shell cleaning and preservation.**
  - c. xxxx-xxxx - Drain line repair**
- 2. Random UT's of corroded stiffeners and shell stbd, Fr 330-367, indicates corrosion is surface deterioration.**
- 3. A deck drain line from the RAST spaces above leaked into the lagging. The leak was discovered after the moisture meter indicated saturated lagging. The ships force submitted a job to have the leak repaired which was cleared as complete by SIMA Norfolk in May 00. (SS01-0532) Scope of saturated insulation and amount of corrosion on the shell indicates the line has been leaking for a long time.**

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<b>SYSTEM</b> <b>HULL STRUCTURE</b>			<b>ESWBS</b> <b>11021</b>		<b>EIC</b> <b>A301</b>		<b>APL</b> <b>N/A</b>		<b>RIC</b>						
<b>EQUIPMENT NAME</b> <b>SHELL&amp;SUPPORTING STRUCTURE</b>				<b>IDENT/SERIAL</b> <b>N/A</b>		<b>LOCATION</b> <b>3-328-0-A</b>		<b>WORK CENTER</b> <b>SS01</b>		<b>JSN</b>					
<b>EQUIPMENT STATUS</b>			<b>PROBLEM STATUS</b>			<b>CATEGORY</b>				<b>EOC</b>					
1. SAT - SATISFACTORY 2. UNSAT - UNSATISFACTORY 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD			1. C - CORRECTED* 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* 4. S - SHIPS FORCE* *UNCORRECTED PROBLEMS			1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. H - HARDWARE 4. D - DOWN* 5. L - LIMITED				<b>.9</b>					
<b>TYPE AVAILABILITY</b>		<b>WHEN TO BE ACCOMPLISHED</b>		<b>STATUS</b>		<b>CAUSE</b>		<b>DEFERRAL REASON</b>							
1. DEPOT 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL		1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. PRIOR TO NEXT DEPLOYMENT 4. DURING POST DEPLOYMENT AVAILABILITY		1. OPERATIONAL 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE OR SKILL 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. NORMAL WEAR AND TEAR 8. NOT APPLICABLE		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FO S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE							
<b>MAN HRS EXPENDED</b> <b>0001</b>		<b>MAN HRS REMAINING</b> <b>1</b>		<b>COMPLETED ACTION TAKEN</b>		<b>S/F MANHOURS</b>		<b>PRIORITY</b>							
<b>SAFETY HAZARD</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL				1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 2-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION				1. MANDATORY 2. ESSENTIAL 3. HIGHLY DESIRABLE 4. DESIRABLE							
DISCREPANCY DE Scription: <b>PER SEMAT I INSPECTION OF SUPPLY STRM (3-328-0-A), THE SHELL LAGGING</b>															
<b>WAS FOUND SATURATED AND THE SHELL STIFFENERS(S11-S15), STBDSIDE, FR 330-366 WERE</b>															
<b>FOUND CORRODED.</b>															
<b>RECOMMENDED REPAIRS</b>															
<b>ACCOMPLISH UT SURVEY OF AREAS INDICATED ON SKETCH PROVIDED TO THE CHIEF ENGINEER</b>															
<b>AND PORT ENGINEER (APPROX. 45 READINGS)</b>															
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001, TPOC: D. SMITH /HUGHES, CDI</b>															
<b>CSMP SUMMARY</b> <b>SUPPLY STRM (3-328-0-A) STIFFENERS AND SHELL CORRODED</b>									<b>TEST # MRC 1102/1</b>						
<b>ROOT CAUSE/AMPLIFICATION</b> <b>H1</b>									<b>STEP #</b> <b>1.a</b>						
<b>SYSTEM LEVEL IMPACT</b>															
<b>PART NO.</b>				<b>NOMENCLATURE</b>				<b>QTY</b>		<b>NSN</b>		<b>COST</b>			
<b>FIRST CONTACT</b> <b>LEACH</b>			<b>RATE</b> <b>SK2</b>		<b>SECOND CONTACT</b> <b>DEBOLT</b>			<b>RATE</b> <b>SK1</b>		<b>PHONE</b>					
<b>BLUEPRINTS, TECH MANUALS, PLANS, ETC.</b>										<b>ON BOARD</b> <b>YES</b> <b>NO</b>					
<b>ASSESSOR / ACT / TECH ID#</b> <b>SPORT 221/ D. SMITH/ HUGHES, CDI</b>								<b>TD</b>		<b>TL</b>		<b>LOGISTICIAN</b>		<b>TSP</b>	

FR 351	FR 352	FR 360	FR 368
1			
1			
3	4" X 6"		O — over
		F 220 .312	
		W 201 .311	
4	.302	F 240	— weld
	.310	W 197	PLATE .313
		F 231	MIN .313
		W 204/105	
5			
6			

3-328-0-A

SUPPLY ISSUE STORE ROOM

USS KLARKING FFG 42

FT LARSON, J LARSON

QED SYDNEY

4/4/01

FR 2.4	FR 352	FR 360	FR 365
1			
1			
3	4" X 6"		○ —
		F 220	312
		W 201	311
4	1302	F 240	
	1310	W 197	
		F 231	
		W 204/105	
5			
6			

wood

Weld

Plate 312

MIN 313

3-328-0-A

SUPPLY ISSUE STORE ROOM

USS KLAARING FEB 42

FSLARSON, STAPTON

QED STAPTON

21/11/01

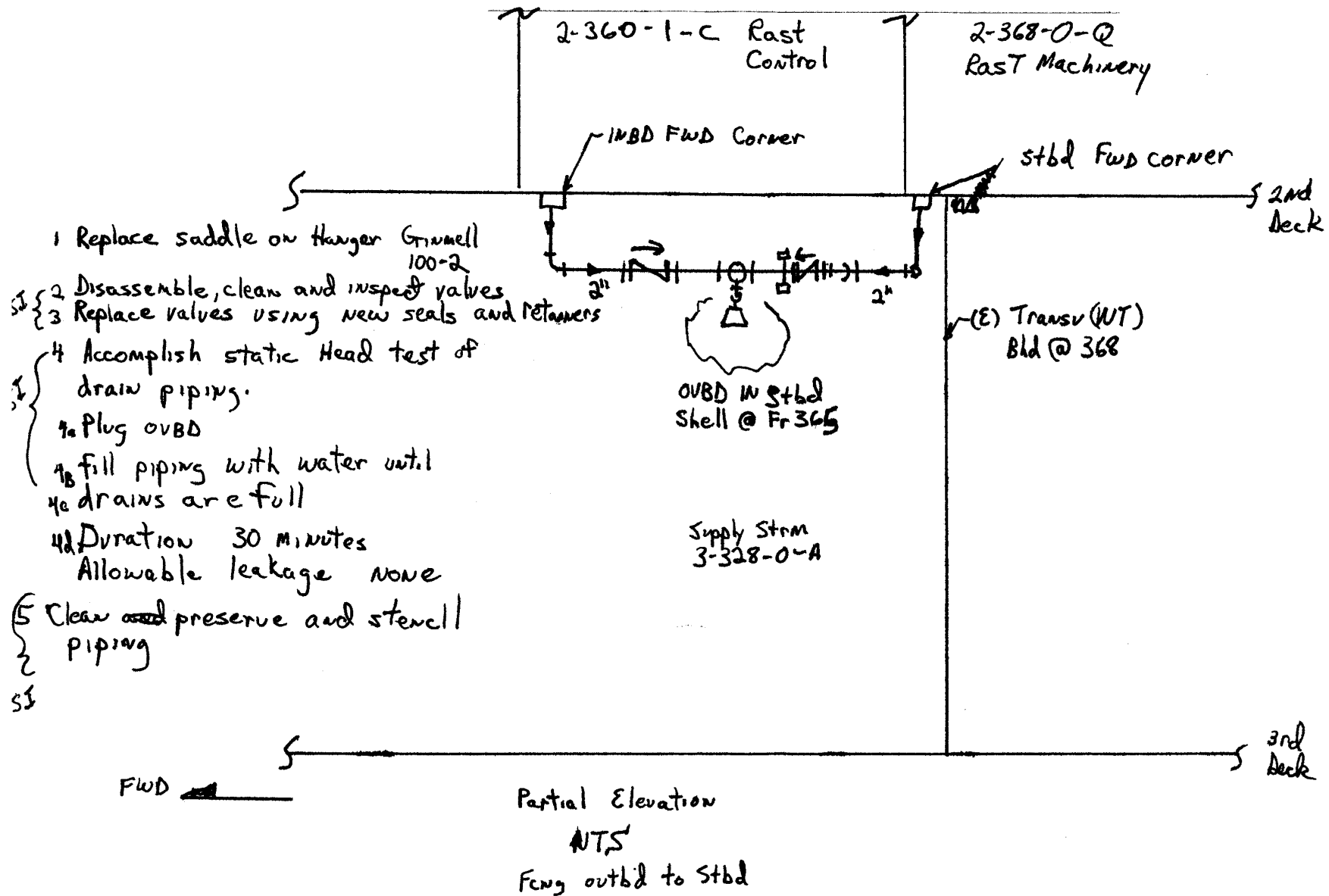
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<b>EQUIPMENT NAME</b> <b>SHELL&amp;SUPPORTING STRUCTURE</b>				<b>IDENT/SERIAL</b> <b>N/A</b>		<b>LOCATION</b> <b>3-328-0-A</b>		<b>WORK CENTER</b> <b>SS01</b>		<b>JSN</b>					
<b>EQUIPMENT STATUS</b>			<b>PROBLEM STATUS</b>			<b>CATEGORY</b>			<b>EOC</b>						
1. SAT - SATISFACTORY 2. UNSAT - UNSATISFACTORY 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD			1. C - CORRECTED* 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* 4. S - SHIPS FORCE* *UNCORRECTED PROBLEMS			1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. H - HARDWARE 4. D - DOWN* 5. L - LIMITED			.9						
<b>TYPE AVAILABILITY</b>		<b>WHEN TO BE ACCOMPLISHED</b>		<b>STATUS</b>		<b>CAUSE</b>		<b>DEFERRAL REASON</b>							
1. DEPOT 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL		1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. PRIOR TO NEXT DEPLOYMENT 4. DURING POST DEPLOYMENT AVAILABILITY		1. OPERATIONAL 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE OR SKILL 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. NORMAL WEAR AND TEAR 8. NOT APPLICABLE		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FO S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE							
<b>MAN HRS EXPENDED</b> <b>0001</b>		<b>MAN HRS REMAINING</b> <b>1</b>		<b>COMPLETED ACTION TAKEN</b>		<b>S/F MANHOURS</b>		<b>PRIORITY</b>							
<b>SAFETY HAZARD</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL				1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 2-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION				1. MANDATORY 2. ESSENTIAL 3. HIGHLY DESIRABLE 4. DESIRABLE							
DISCREPANCY DE Scription: <b>PER SEMAT I INSPECTION OF SUPPLY STRM (3-328-0-A), THE SHELL LAGGING</b>															
<b>WAS FOUND SATURATED AND THE SHELL STIFFENERS(S11-S15), STBDSIDE, FR 330-366 WERE</b>															
<b>FOUND CORRODED.</b>															
<b>RECOMMENDED REPAIRS</b>															
<b>REMOVE APPROXIMATELY 300 SF OF SHELL INSULATION. REMOVE CORROSION AND PRESERVE</b>															
<b>SHELL. INSTALL SHELL INSULATION. PAINT INSULATION TO MATCH SURROUNDING AREAS.</b>															
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001, TPOC: D. SMITH /HUGHES, CDI</b>															
<b>CSMP SUMMARY</b> <b>SUPPLY STRM (3-328-0-A) STIFFENERS AND SHELL CORRODED</b>								<b>TEST # MRC 1102/1</b>							
<b>ROOT CAUSE/AMPLIFICATION</b> <b>H1</b>								<b>STEP #</b> <b>1.a</b>							
<b>SYSTEM LEVEL IMPACT</b>															
<b>PART NO.</b>				<b>NOMENCLATURE</b>				<b>QTY</b>		<b>NSN</b>		<b>COST</b>			
<b>FIRST CONTACT</b> <b>LEACH</b>				<b>RATE</b> <b>SK2</b>		<b>SECOND CONTACT</b> <b>DEBOLT</b>				<b>RATE</b> <b>SK1</b>		<b>PHONE</b>			
<b>BLUEPRINTS, TECH MANUALS, PLANS, ETC.</b>										<b>ON BOARD</b> <b>YES</b> <b>NO</b>					
<b>ASSESSOR / ACT / TECH ID#</b> <b>SPORT 221/ D. SMITH/ HUGHES, CDI</b>								<b>TD</b>		<b>TL</b>		<b>LOGISTICIAN</b>		<b>TSP</b>	

# MATERIAL ASSESSMENT FORM

ITEM NUMBER				SHIP <b>USS KLA KRING FFG 42</b>											
<b>SYSTEM</b> <b>DECK DRAIN</b>			<b>ESWBS</b> <b>52611</b>		<b>EIC</b> <b>A301</b>		<b>APL</b> <b>N/A</b>		<b>RIC</b>						
<b>EQUIPMENT NAME</b> <b>DECK DRAIN PIPING</b>				<b>IDENT/SERIAL</b> <b>N/A</b>		<b>LOCATION</b> <b>3-328-0-A</b>		<b>WORK CENTER</b> <b>SS01</b>		<b>JSN</b>					
<b>EQUIPMENT STATUS</b>			<b>PROBLEM STATUS</b>			<b>CATEGORY</b>				<b>EOC</b>					
1. SAT - SATISFACTORY 2. UNSAT - UNSATISFACTORY 3. TNA - TEST NOT ATTEMPTED 4. TNC - TEST NOT COMPLETED 5. NOB - EQUIPMENT NOT ONBOARD			1. C - CORRECTED* 2. A - AWAITING PARTS 3. T - AWAITING TECH ASSIST* 4. S - SHIPS FORCE* *UNCORRECTED PROBLEMS			1. S - PERSONNEL SAFETY 2. Z - EQUIPMENT SAFETY 3. H - HARDWARE 4. D - DOWN* 5. L - LIMITED				.9					
<b>TYPE AVAILABILITY</b>		<b>WHEN TO BE ACCOMPLISHED</b>		<b>STATUS</b>		<b>CAUSE</b>		<b>DEFERRAL REASON</b>							
1. DEPOT 2. IMA 3. TECH ASSIST 4. SHIP'S FORCE 5. SFWL		1. IMMEDIATELY 2. PRIOR TO NEXT UNDERWAY 3. PRIOR TO NEXT DEPLOYMENT 4. DURING POST DEPLOYMENT AVAILABILITY		1. OPERATIONAL 2. NON-OPERATIONAL 3. REDUCED CAPABILITY 4. NOT APPLICABLE		1. ABNORMAL ENVIRONMENT 2. MANUFACTURER/INSTALLATION DEFECTS 3. LACK OF KNOWLEDGE OR SKILL 4. COMMUNICATION PROBLEMS 5. INADEQUATE INSTRUCTION/PROCEDURE 6. INADEQUATE DESIGN 7. NORMAL WEAR AND TEAR 8. NOT APPLICABLE		1. S/F BACKLOG/OPERATIONAL PRIORITY 2. LACK OF MATERIAL 3. NO FORMAL TRAINING ON THIS EQUIPMENT 4. FORMAL TRAINING INADEQUATE THIS EQUIPMENT 5. INADEQUATE SCHOOL PRACTICAL TRAINING 6. LACK OF FACILITIES/CAPABILITIES 7. NOT AUTHORIZED FO S/F ACCOMPLISHMENT 8. FOR S/F OVERHAUL OR AVAILABILITY WORK LIST 9. LACK OF TECHNICAL DOCUMENTATION 0. OTHER OR NOT APPLICABLE							
MAN HRS EXPENDED <b>0001</b>		MAN HRS REMAINING <b>1</b>		COMPLETED ACTION TAKEN		S/F MANHOURS		PRIORITY							
<b>SAFETY HAZARD</b> 1. SERIOUS - CORRECT AS SOON AS POSSIBLE 2. SERIOUS - SUSPENSION OF EQUIPMENT/SYSTEM/SPACE REQUIRED 3. SERIOUS - WAIVER OF EQUIPMENT/SYSTEM 4. SAFETY ITEM - MINOR 5. COMBUSTIBLE MATERIAL				1. MAINTENANCE ACTION COMPLETED: PARTS DRAWN FROM SUPPLY 2. MAINTENANCE ACTION COMPLETED: PARTS NOT DRAWN FROM SUPPLY 3. MAINTENANCE ACTION COMPLETED: NO PARTS REQUIRED 4. CANCELLED - DEFERRAL WILL BE REMOVED FROM CSMP 5. MAINTENANCE ACTION COMPLETED: 2-M CAPABILITY UTILIZED 6. NONE OF THE ABOVE, DESCRIBE IN REMARKS/DESCRIPTION SECTION				1. MANDATORY 2. ESSENTIAL 3. HIGHLY DESIRABLE 4. DESIRABLE							
DISCREPANCY DESCRIPTION: <b>PER SEMAT I INSPECTION OF SUPPLY STRM (3-328-0-A), THE DECK DRAIN PIPING</b>															
<b>FROM RAST CONTROL ROOM (2-360-1-C) AND RAST MACHINERY ROOM (2-368-0-Q) IS LEAKING AT FR</b>															
<b>365 AND DAMAGING THE SHELL LAGGING AND CORRODING THE SHELL AND STRUCTURE.</b>															
<b>RECOMMENDED REPAIRS</b>															
<b>REMOVE THE PIPE HANGER SADDLE AND THE (2) 2" IPS CHECK VALVES AT FR 366 IN THE OVHD.</b>															
<b>INSTALL A NEW HANGER. OVERHAUL CHECK VALVES AND REINSTALL WITH NEW SEALS AND</b>															
<b>RETAINERS. PLUG THE OVBD AND TEST REPAIRED PIPING. ALLOWABLE LEAKAGE : NONE</b>															
<b>SSPORT C221 POC: J. BRUCKNER (757) 396-4001, TPOC: D. SMITH /HUGHES, CDI</b>															
<b>CSMP SUMMARY</b> <b>SUPPLY STRM (3-328-0-A) DECK DRAIN PIPING LEAKING</b>									<b>TEST # MRC 1102/1</b>						
<b>ROOT CAUSE/AMPLIFICATION</b> <b>H1</b>									<b>STEP # 1.a</b>						
<b>SYSTEM LEVEL IMPACT</b>															
<b>PART NO.</b>				<b>NOMENCLATURE</b>				<b>QTY</b>		<b>NSN</b>		<b>COST</b>			
<b>FIRST CONTACT</b> <b>LEACH</b>				<b>RATE</b> <b>SK2</b>		<b>SECOND CONTACT</b> <b>DEBOLT</b>				<b>RATE</b> <b>SK1</b>		<b>PHONE</b>			
<b>BLUEPRINTS, TECH MANUALS, PLANS, ETC.</b>										<b>ON BOARD</b> <b>YES</b> <b>NO</b>					
<b>ASSESSOR / ACT / TECH ID#</b> <b>SPORT 221/ D. SMITH/ HUGHES, CDI</b>								<b>TD</b>		<b>TL</b>		<b>LOGISTICIAN</b>		<b>TSP</b>	





FFG-42 Combined Supply Department Storeroom 3-328-0-A



Heavy surface corrosion at a stiffener weep hole, FR 350



Deck drain piping. Note corrosion in way of several joints and hanger.

FFG-42 Combined Supply Department Storeroom 3-328-0-A

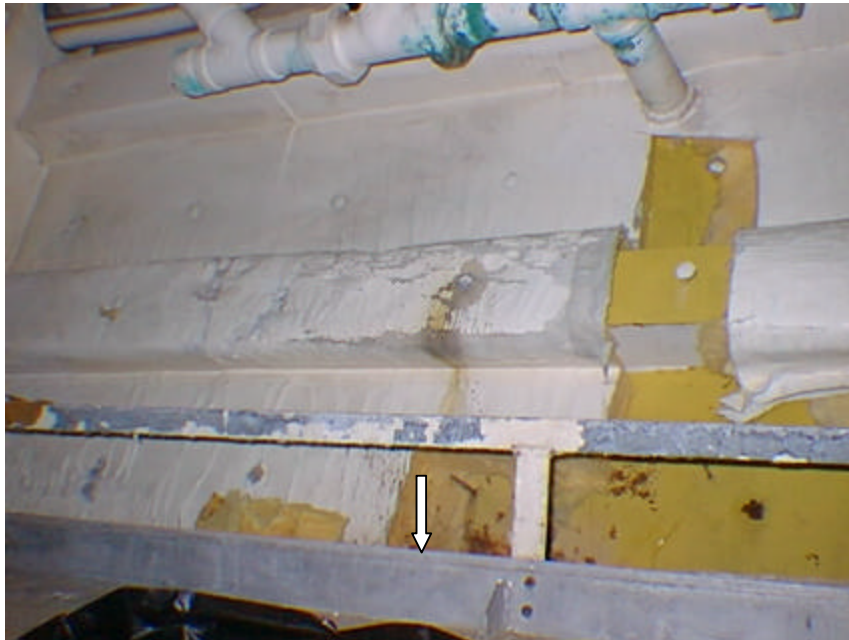


Arrow indicates leaking deck drain piping. Lagging removed for evaluation



Lagging retaining buttons are completely corroded away, indicating long-term saturation.

FFG-42 Combined Supply Department Storeroom 3-328-0-A



Lagging removed to ensure that overboard piping is not leaking. Corrosion starts on the next stringer down, in line with longitudinal pipe run.

**SHELL CONDITION ASSESSMENT SURVEY  
AUXILIARY PROPULSION ROOM  
(4-100-0-E)**

- 1. No 2K's submitted.**
- 2. Shipyard has completed cleaning and painting bilge areas and is accomplishing UT's of suspect areas.**

FPG-42 APU Machinery Room (4-100-0-E)



Deep pit in shell, Fr 106, port. Shell is 1/2" thick



Corrosion under APU control unit. Shipyard is investigating how to get to the area and UTing.



Additional view of deep pit at Fr 106 port and (2) smaller ones at approx. Fr 104. Shell is 1/2" thick.



# **SHELL CONDITION ASSESSMENT SURVEY MISCELLANEOUS SPACES**

- 1. No 2K's submitted.**

FFG-42 Sonar Equipment Room 4-48-1-Q



View of shell, stbd side Fr 49, 4<sup>th</sup> deck. Corrosion is typical of the class. Shipyard is replacing a stiffener and preserving the area



View of after bhd, showing corrosion in areas not accessible when equipment is installed.



FFG-42 Sonar Equipment Room 4-48-1-Q



Arrow indicates a hole in the web of the stiffener. A sheet of paper is under the hole to help show it . Shipyard is going to replace 12' of stiffener.

FFG-42 Berthing & Dressing Space 3-100-0-L



Corrosion noted at the connection between the 3<sup>rd</sup> deck and shell. Shipyard will clean and preserve as part of space rehab

ship_hull	location	efd	hsc	wcr equip	ric	rin
42	2-100-01-L ✓	BERTHING & DRESSING SPACE (2-100-01-L)	64311E7300		XCOMPARTMNT	00EXZ
42	2-100-0-L ✓	LOUNGE, RECREATION (2-100-0-L)	64511E7100		XCOMPARTMNT	00EXY
42	2-100-1-L ✓	PASSAGEWAY & DRESSING SPACE (2-100-1-L)	64511E7500		XCOMPARTMNT	00EYA
42	2-100-4-L ✓	PASSAGEWAY (2-100-4-L)	64511E7700		XCOMPARTMNT	00EYB
42	2-113-0-L ✓	SANITARY SPACE (2-113-0-L)	64411E7900		XCOMPARTMNT	00EYC
42	2-113-0-L ✓	LOCKER, CLEANING GEAR	67111E8100		XCOMPARTMNT	00EYD
42	2-140-01-L ✓	PASSAGEWAY (2-140-01-L)	64511E9100		XCOMPARTMNT	00EYE
42	2-140-0-Q ✓	BARBER SHOP (2-140-0-Q)	65411E9300		XCOMPARTMNT	00EYF
42	2-140-1-Q ✓	POST OFFICE (2-140-1-Q)	66111E9500		XCOMPARTMNT	00EYG
42	2-140-2-Q ✓	VAULT, REGISTERED PUBLICATIONS (2-140-2-Q)	67111E9700		XCOMPARTMNT	00EYH
42	2-140-4-Q ✓	SHIP STORE (2-140-4-Q)	65411E9900		XCOMPARTMNT	00EYJ
42	2-152-0-L ✓	DRESSING SPACE (2-152-0-L)	64211E9B00		XCOMPARTMNT	00EYK
42	2-152-2-L ✓	MEDICAL TREATMENT ROOM (2-152-2-L)	65211E9D00		XCOMPARTMNT	00EYL
42	2-154-0-L ✓	LOCKER, CLEANING GEAR <i>2-161-2</i>	67111E9H00		XCOMPARTMNT	00EYN
42	2-154-0-L ✓	SANITARY SPACE (2-154-0-L)	64411E9F00		XCOMPARTMNT	00EYM
42	2-168-2-L ✓	LOUNGE, CPO (2-168-2-L)	64511EA100		XCOMPARTMNT	00EYP
42	2-171-0-L ✓	BERTHING SPACE 1 (2-171-0-L)	64211EA300		XCOMPARTMNT	00EYQ
42	2-171-1-L ✓	BERTHING SPACE 2 (2-171-1-L)	64211EA500		XCOMPARTMNT	00EYR
42	2-171-3-L ✓	BERTHING SPACE 3 (2-171-3-L)	64211EA700		XCOMPARTMNT	00EYS
42	2-177-2-T ✓	TRUNK, VENT (2-177-2-T)	12321EA900		XCOMPARTMNT	00EYT
42	2-180-0-Q ✓	GALLEY (2-180-0-Q)	65111EB100		XCOMPARTMNT	00EYU
42	2-180-0-Q ✓	LOCKER, CG AND DIESEL EXHAUST ENCLOSURE	67111EB300		XCOMPARTMNT	00EYV
42	2-180-1-L ✓	PASSAGEWAY (2-180-1-L)	64511EB500		XCOMPARTMNT	00EYW
42	2-180-2-L ✓	MESSROOM, CPO (2-180-2-L)	64221EB700		XCOMPARTMNT	00EYX
42	2-180-4-L ✓	PASSAGEWAY (2-180-4-L)	64511EB900		XCOMPARTMNT	00EYY
42	2-187-2-T ✓	TRUNK, ACCESS (2-187-2-T)	12321EBB00		XCOMPARTMNT	00EYZ
42	2-188-1-Q ✓	GALLEY ANNEX (2-188-1-Q)	65111EBD00		XCOMPARTMNT	00EZA
42	2-20-0-A ✓	STOREROOM, BOSN 2 (2-20-0-A)	67211E3100		XCOMPARTMNT	00EXH
42	2-203-2-Q ✓	SCULLERY (2-203-2-Q)	65111EC100		XCOMPARTMNT	00EZB
42	2-208-2-T ✓	TRUNK, ESCAPE (2-208-2-T)	12321EC300		XCOMPARTMNT	00EZX
42	2-209-1-Q ✓	DUMBWAITER (2-209-1-Q)	57211EC500		XCOMPARTMNT	00EZD
42	2-212-01-L ✓	PASSAGEWAY (2-212-01-L)	64511EC700		XCOMPARTMNT	00EZE
42	2-212-0-L ✓	MESSROOM, CREW (2-212-0-L)	64321EC900		XCOMPARTMNT	00EZF
42	2-212-0-L ✓	LOCKER, CLEANING GEAR <i>2-245-2</i>	67111EE300		XCOMPARTMNT	00EZN

42	2-212-2-T	✓	TRUNK, ESCAPE (2-212-2-T)	12321ECD00		XCOMPARTMNT	00EZG
42	2-220-1-Q	✓	AFFF STATION 2 (2-220-1-Q) <del>#1</del>	66411ED100		XCOMPARTMNT	00EZH
42	2-223-1-T	✓	TRUNK, ACCESS (2-223-1-T)	12321ED300		XCOMPARTMNT	00EZJ
42	2-225-1-A	✓	PROPULSION REPAIR 5 (2-225-1-A)	66411ED500		XCOMPARTMNT	00EZK
42	2-237-1-Q	✓	TRASH DISPOSAL ROOM (2-237-1-Q)	65611ED700		XCOMPARTMNT	00EZL
42	2-244-2-Q	✓	FAN ROOM (2-244-2-Q)	66211EE100		XCOMPARTMNT	00EZM
42	2-250-0-L	✓	PASSAGEWAY (2-250-0-L)	64511EE700		XCOMPARTMNT	00EZP
42	2-276-2-J	✓	JP5 SERVICE TANK 2-276-2-J <del>JP5 SERVICE TANK</del>	12312N3101		XTANK003970	00EZQ
42	2-278-2-Q	✓	AFFF STATION 2 (2-278-2-Q)	66411EF300		XCOMPARTMNT	00EZR
42	2-292-01-C	✓	CENTRAL CONTROL STATION (2-292-01-C)	66211EG100		XCOMPARTMNT	00Ezs
42	2-292-0-L	✓	PASSAGEWAY (2-292-0-L)	64511EG300		XCOMPARTMNT	00EZT
42	2-292-2-Q	✓	WORKSHOP, GENERAL (2-292-2-Q)	66511EG500		XCOMPARTMNT	00EZU
42	2-301-1-T	✓	TRUNK, ACCESS (2-301-1-T)	12321EH100		XCOMPARTMNT	00EZV
42	2-316-2-Q	✓	ELECTRICAL SHOP&DEGAUSSING EQUIP RM (2-316-2-Q)	66521EH300		XCOMPARTMNT	00EZW
42	2-32-0-Q	✓	WINDLASS ROOM (2-32-0-Q)	66211E3300		XCOMPARTMNT	00EXJ
42	2-325-0-T	✓	TRUNK, ESCAPE (2-325-0-T)	12321EJ100		XCOMPARTMNT	00EXX
42	2-328-0-Q	✓	CENTRAL OFFICE COMPLEX (2-328-0-Q)	66111EJ300		XCOMPARTMNT	00EZY
42	2-328-2-L	✓	PASSAGEWAY (2-328-2-L)	64511EJ500		XCOMPARTMNT	00EZZ
42	2-328-4-T	✓	TRUNK, ACCESS (2-328-4-T)	12321EJ700		XCOMPARTMNT	00F0A
✓ 42	2-328-6-Q	✓	SUPPLY SUPPORT CENTER (2-328-6-Q)	66111EJ900		XCOMPARTMNT	00F0B
42	2-344-2-A	✓	AFT REPAIR 3 (2-344-2-A)	66411EK100		XCOMPARTMNT	00F6D
42	2-353-2-K	✓	STOREROOM, GAS CYLINDER (2-353-2-K)	67211EK700		XCOMPARTMNT	00F6E
✓ 42	2-360-1-C	✓	RAST CONTROL STATION (2-360-1-C)	66211EL100		XCOMPARTMNT	00F6F
42	2-360-2-Q	✓	AFF STATION 4 (2-360-2-Q) <del>LOSS FUEL BURN STA.</del>	66411EL300		XCOMPARTMNT	00F0C
42	2-36-2-T	✓	TRUNK, ESCAPE (2-36-2-T)	12321E3500		XCOMPARTMNT	00EXK
42	2-363-2-L	✓	WASH ROOM & WATER CLOSET (2-363-2-L)	64411EL500		XCOMPARTMNT	00F0D
42	2-368-01-L	✓	PASSAGEWAY & AFT BATTLE DRSG STA (2-368-01-L)	64511EL700		XCOMPARTMNT	00F0E
✓ 42	2-368-0-Q	✓	HLCPTR HAUL DOWN & TRAV MCHRY ROOM (2-368-0-Q)	66211ELB00		XCOMPARTMNT	00F6G
42	2-368-1-A	✓	STOREROOM, AVIATION 1 (2-368-1-A)	67211ELD00		XCOMPARTMNT	00F6H
42	2-368-2-Q	✓	FILTER CLEANING SHOP (2-368-2-Q)	66511ELM00		XCOMPARTMNT	00F6J
42	2-376-2-A	✓	STOREROOM, MEDICAL (2-376-2-A)	67211ELR00		XCOMPARTMNT	00F6K
42	2-383-2-J	✓	HELICOPTER FUELING ROOM (2-383-2-J)	66211EM100		XCOMPARTMNT	00F6L
42	2-388-2-Q	✓	TACTAS HANDLING & BT ROOM (2-388-2-Q)	66211EM500		XCOMPARTMNT	00F6M
42	2-390-1-A	✓	STOREROOM, AVIATION 2 (2-390-1-A)	67211EMB00		XCOMPARTMNT	00F6N
42	2-397-1-Q	✓	NIXIE ROOM (2-397-1-Q)	66211EMK00		XCOMPARTMNT	00F6P

42	2-40-1-A ✓	BAGGAGE ROOM, CREW & CPO (2-40-1-A)	67211E4100		XCOMPARTMNT	00EXL
42	2-40-2-L ✓	PASSAGEWAY (2-40-2-L)	64511E4300		XCOMPARTMNT	00EXM
42	2-407-0-A ✓	STOREROOM, AVIATION 3 (2-407-0-A)	67211EN300		XCOMPARTMNT	00F6Q
42	2-44-2-A ✓	BAGGAGE ROOM, OFFICERS (2-44-2-A) <i>TECH LIBRARY</i>	67211E4500		XCOMPARTMNT	00EXN
42	2-48-1-A ✓	ARMORY (2-48-1-A)	76311E4700		XCOMPARTMNT	00EXP
42	2-48-2-A ✓	STOREROOM, DECK GEAR (2-48-2-A)	67211E4900		XCOMPARTMNT	00EXQ
42	2-55-1-A ✓	FWD REPAIR 2 (2-55-1-A)	66411E4B00		XCOMPARTMNT	00EXR
42	2-60-2-Q ✓	AFFF STATION 1 (2-60-2-Q)	66411E5100		XCOMPARTMNT	00EXS
42	2-64-0-L ✓	PASSAGEWAY (2-64-0-L)	64511E5300		XCOMPARTMNT	00EXT
42	2-79-0-C ✓	IC & GYRO ROOM & ELECTRONICS SHOP (2-79-0-C)	66521E5500		XCOMPARTMNT	00EXU
42	2-79-1-A ✓	STOREROOM, ATHLETIC GEAR (2-79-1-A)	67211E5700		XCOMPARTMNT	00EXV
42	2-84-1-T ✓	TRUNK, ESCAPE (2-84-1-T)	12321E6100		XCOMPARTMNT	00EXW
42	2-92-2-T ✓	TRUNK, ACCESS (2-92-2-T)	12321E6300		XCOMPARTMNT	00EXX
42	2-Z-0-A ✓	STOREROOM, BOSN 1 (2-Z-0-A)	67211E1100		XCOMPARTMNT	00EXG
42	3-100-0-L ✓	BERTHING & DRESSING SPACE (3-100-0-L)	64311F7100		XCOMPARTMNT	00F0T
42	3-100-1-L ✓	LOUNGE, RECREATION (3-100-1-L)	64511F7300		XCOMPARTMNT	00F0U
42	3-113-0-L ✓	LOCKER, CLEANING GEAR	67111F7700		XCOMPARTMNT	00F0W
42	3-113-0-L ✓	SANITARY SPACE (3-113-0-L)	64411F7500		XCOMPARTMNT	00F0V
42	3-119-0-T ✓	TRUNK, ACCESS (3-119-0-T)	12321F7900		XCOMPARTMNT	00F7T
42	3-140-0-L ✓	SANITARY SPACE (3-140-0-L)	64411F9100		XCOMPARTMNT	00F0X
42	3-140-1-L ✓	LOCKER, CLEANING GEAR	67111F9500		XCOMPARTMNT	00F0Z
42	3-140-1-L ✓	PASSAGEWAY (3-140-1-L)	64511F9300		XCOMPARTMNT	00F0Y
42	3-140-2-L ✓	LOUNGE, RECREATION (3-140-2-L)	64511F9700		XCOMPARTMNT	00F1A
42	3-144-0-L ✓	BERTHING & DRESSING SPACE (3-144-0-L)	64311F9900		XCOMPARTMNT	00F1B
42	3-154-1-Q ✓	PIPING SPACE (3-154-1-Q)	66211F9B00		XCOMPARTMNT	00F1C
42	3-156-2-Q ✓	PIPING SPACE (3-156-2-Q)	66211F9D00		XCOMPARTMNT	00F1D
42	3-180-0-A ✓	STOREROOM, FREEZE (3-180-0-A)	63811FB100		XCOMPARTMNT	00F1E
42	3-180-1-A ✓	STOREROOM, CHILL 1 (3-180-1-A)	63811FB300		XCOMPARTMNT	00F1F
42	3-180-2-C ✓	SWITCHGEAR ROOM (3-180-2-C)	66311FB500		XCOMPARTMNT	00F1G
42	3-180-3-A ✓	STOREROOM, CHILL 2 (3-180-3-A)	63811FB700		XCOMPARTMNT	00F1H
42	3-180-5-A ✓	STOREROOM, DRY PROVISIONS (3-180-5-A)	67211FB900		XCOMPARTMNT	00F1J
42	3-188-0-L ✓	PASSAGEWAY (3-188-0-L)	64511FBB00		XCOMPARTMNT	00F1K
42	3-196-2-A ✓	STOREROOM, SHIP STORE (3-196-2-A)	67211FBD00		XCOMPARTMNT	00F1L
42	3-200-2-E ✓	ELEVATOR MACHINERY ROOM (3-200-2-E)	66211FC100		XCOMPARTMNT	00F1M
42	3-20-0-Q ✓	CHAIN LOCKER 3-20-0-Q	12321N1111		XVOID003956	00F0F

Add

3-140-1-A SANITARY SPACE, DEEP SINK

42	3-236-1-F	LUBE OIL STORAGE TANK 3-236-1-F	12315N1104		XTANK003928	00F1N
42	3-236-2-F	LUBE OIL STORAGE TANK 3-236-2-F	12315N1105		XTANK003927	00F1P
42	3-240-1-F	FUEL OIL SERVICE TANK 3-240-1-F	12311N3101		XTANK003972	00F1Q
42	3-240-2-F	FUEL OIL SERVICE TANK 3-240-2-F	12311N3102		XTANK003965	00F1R
42	3-250-1-T	TRUNK, ACCESS (3-250-1-T)	12321FE500		XCOMPARTMNT	00F1S
42	3-250-2-T	TRUNK, ACCESS (3-250-2-T)	12321FE700		XCOMPARTMNT	00F1T
42	3-272-2-F ✓	LUBE OIL STORAGE TANK 3-272-2-F	12315N1107		XTANK003900	00F1U
42	3-278-1-F ✓	LUBE OIL STORAGE TANK 3-278-1-F	12315N1108		XTANK003896	00F1V
42	3-278-2-F ✓	LUBE OIL STORAGE TANK 3-278-2-F	12315N1109		XTANK003901	00F1W
42	3-286-1-F ✓	LUBE OIL STORAGE TANK 3-286-1-F	12315N1110		XTANK003898	00F1X
42	3-286-2-F ✓	LUBE OIL STORAGE TANK 3-286-2-F	12315N1111		XTANK003902	00F1Y
42	3-292-2-E ✓	SSDG ENCLOSURE 4 (3-292-2-E)	66211FG500		XCOMPARTMNT	00F1Z
42	3-292-4-F ✓	FUEL OIL SERVICE TANK 3-292-4-F	12311N3103		XTANK003949	00F2A
42	3-292-6-F ✓	FUEL OIL SERVICE TANK 3-292-6-F	12311N3104		XTANK003942	00F2B
42	3-292-8-F ✓	LUBE OIL STORAGE TANK 3-292-8-F	12315N1112		XTANK003897	00F2C
42	3-316-1-J ✓	JP5 SERVICE TANK 3-316-1-J (1A)	12312N3102		XTANK003963	00F2D
42	3-32-1-K	STOREROOM, FLAMMABLE LIQUIDS (3-32-1-K)	67211F3300		XCOMPARTMNT	00F0G
42	3-322-1-J ✓	JP5 SERVICE TANK 3-322-1-J (1B)	12312N3103		XTANK003964	00F2E
42	3-32-2-A	ISSUE ROOM, SECURITY FORCES (3-32-2-A)	67212F3600		XCOMPARTMNT	00H7C
42	3-325-0-T	TRUNK, ESCAPE (3-325-0-T)	12321FJ300		XCOMPARTMNT	00F2F
42	3-328-0-A	STOREROOM, COMBINED SUPPLY DEPT (3-328-0-A)	67211FJ500		XCOMPARTMNT	00F2G
42	3-36-2-T	TRUNK, ESCAPE (3-36-2-T)	12321F3700		XCOMPARTMNT	00F0H
42	3-40-2-A	STOREROOM, CPO (3-40-2-A)	67211F4100		XCOMPARTMNT	00F0J
42	3-43-0-L	PASSAGEWAY (3-43-0-L)	64511F4300		XCOMPARTMNT	00F0K
42	3-46-1-A	STOREROOM, SPECIAL CLOTHING (3-46-1-A)	67211F4700		XCOMPARTMNT	00F9V
42	3-53-2-A	STOREROOM, CLOTHING & SMALL STORES (3-53-2-A)	67211F4B00		XCOMPARTMNT	00F0L
42	3-56-0-A	STOREROOM, DECK GEAR (3-56-0-A)	67211F4D00		XCOMPARTMNT	00F0M
42	3-64-0-M	MAGAZINE, MK13 GMLS (3-64-0-M)	72111F5100		XCOMPARTMNT	00F0N
42	3-64-1-V	ACCESSIBLE VOID 3-64-1-V	12321N1101		XVOID003946	00F0P
42	3-64-2-V	ACCESSIBLE VOID 3-64-2-V	12321N1102		XVOID003910	00F0Q
42	3-84-0-E	AC MACHINERY ROOM (3-84-0-E)	66211F6100		XCOMPARTMNT	00F0R
42	3-84-1-T	TRUNK, ESCAPE (3-84-1-T)	12321F6300		XCOMPARTMNT	00F0S
42	4-100-0-E	APU MACHINERY ROOM (4-100-0-E)	66211G7100		XCOMPARTMNT	00F2T
42	4-140-0-Q ✓	LAUNDRY (4-140-0-Q)	65511G9100		XCOMPARTMNT	00F2U
42	4-140-1-L ✓	PASSAGEWAY (4-140-1-L)	64511G9300		XCOMPARTMNT	00F2V

CHK  
↑  
CHK

Add  
Add

3-48-2-A MEDICAL STAM  
3-272-1-F L.O. STORAGE TK

XCOMPARTMNT

42	4-140-2-A ✓	STOREROOM, LAUNDRY 2 (4-140-2-A)	67211G9400		XCOMPARTMNT	00F9X
42	4-140-3-A ✓	STOREROOM, LAUNDRY (4-140-3-A)	67211G9500		XCOMPARTMNT	00F2W
42	4-144-1-T ✓	LOCKER, CLEANING GEAR	67111G9900		XCOMPARTMNT	00F2Y
42	4-144-1-T ✓	TRUNK, ACCESS (4-144-1-T)	12321G9700		XCOMPARTMNT	00F2X
42	4-152-1-A ✓	STOREROOM, CHEM WARFARE DEF EQUIP (4-152-1-A)	67211G9B00		XCOMPARTMNT	00F2Z
42	4-160-0-Q ✓	SEWAGE COLLECTING HOLDING & BLR ROOM (4-160-0-Q)	66211GA100		XCOMPARTMNT	00F3A
42	4-170-0-W ✓	CHT TANK 4-170-0-W	12319N9101		XTANK003944	00F3B
42	4-172-1-E ✓	FIRE PUMP ROOM (4-172-1-E)	66211GA500		XCOMPARTMNT	00F3C
42	4-20-0-W ✓	CHAIN LOCKER SUMP 4-20-0-W	12321N1112		XVOID003939	00F2J
42	4-203-0-T ✓	TRUNK, ELEVATOR (4-203-0-T)	12321GC100		XCOMPARTMNT	00F3D
42	4-208-2-T	TRUNK, ESCAPE (4-208-2-T)	12321GC300		XCOMPARTMNT	00F3E
42	4-208-4-F	LUBE OIL STORAGE TANK 4-208-4-F	12315N1113		XTANK003914	00F3F
42	4-212-2-T	TRUNK, ESCAPE (4-212-2-T)	12321GC700		XCOMPARTMNT	00F3G
42	4-27-0-V	ACCESSIBLE VOID 4-27-0-V	12321N1103		XVOID003913	00F2K
42	4-32-0-Q	SONAR EQUIPMENT ROOM (4-32-0-Q)	66311G3500		XCOMPARTMNT	00F2L
42	4-48-1-Q	SONAR COOLING EQUIPMENT ROOM (4-48-1-Q)	66211G4100		XCOMPARTMNT	00F2M
42	4-48-2-L	PASSAGEWAY (4-48-2-L)	64511G4300		XCOMPARTMNT	00F2N
42	4-56-0-M	MAGAZINE, SMALL ARMS (4-56-0-M)	71311G4500		XCOMPARTMNT	00F2P
42	4-56-2-A	STOREROOM, DECK GEAR (4-56-2-A)	67211G4700		XCOMPARTMNT	00F2Q
42	4-64-0-Q	MAGAZINE, SERVICE ROOM&N2 CHARGING STA (4-64-0-Q)	72111G5100		XCOMPARTMNT	00F2R
42	4-77-0-Q	PLENUM CHAMBER (4-77-0-Q)	12321G5300		XCOMPARTMNT	00F2S
42	4-H-0-V	ACCESSIBLE VOID 4-H-0-V	12321N1104		XVOID003912	00F2H
42	5.5-116-0-V	INACCESSIBLE VOID 5.5-116-0-V	12321N3101		XVOID003973	00F7U
42	5-100-1-W	APU WELL 1 5-100-1-W	12321N1109		XVOID003908	00F3Q
42	5-100-2-W	APU WELL 2 5-100-2-W	12321N1110		XVOID003926	00F3R
42	5-100-3-F	FUEL OIL STORAGE TANK 5-100-3-F	12311N1102		XTANK003911	00F3S
42	5-100-4-F	FUEL OIL STORAGE TANK 5-100-4-F	12311N1103		XTANK003931	00F3T
42	5-116-0-W	SALT WATER BALLAST TANK 5-116-0-W	12316N1101		XTANK003934	00F3U
42	5-116-1-F	FUEL OIL STORAGE TANK 5-116-1-F	12311N1104		XTANK003917	00F3V
42	5-116-2-F	FUEL OIL STORAGE TANK 5-116-2-F	12311N1105		XTANK003924	00F3W
42	5-132-0-F	CONTAMINATED OIL TANK 5-132-0-F	12317N4108		XTANK003938	00F3X
42	5-137-1-T	UNDERWATER LOG TRUNK 5-137-1-T	12321N2101		XVOID003921	00F3Y
42	5-140-1-F	FUEL OIL STORAGE TANK 5-140-1-F	12311N1106		XTANK003937	00F3Z
42	5-140-2-F	FUEL OIL STORAGE TANK 5-140-2-F	12311N1107		XTANK003903	00F4A
42	5-164-0-F	CONTAMINATED OIL TANK 5-164-0-F	12317N4102		XTANK003936	00F4B

42	5-164-1-W	WASTE STORAGE TANK 5-164-1-W	12319N9109		XTANK003935	00F4C
42	5-164-2-F	FUEL OIL STORAGE TANK 5-164-2-F	12311N1108		XTANK003962	00F4D
42	5-164-3-F	FUEL OIL STORAGE TANK 5-164-3-F	12311N1109		XTANK003916	00F4E
42	5-170-0-F	CONTAMINATED OIL TANK 5-170-0-F	12317N4103		XTANK003971	00F4F
42	5-180-01-E	SSDG ENCLOSURE 1 (5-180-01-E)	66211HB300		XCOMPARTMNT	00F4H
42	5-180-0-E	AUX MACHINERY ROOM 1 (5-180-0-E)	66211HB100		XCOMPARTMNT	00F4G
42	5-183-2-F	TANK, FSS STORAGE (5-183-2-F)	56511HB500		XCOMPARTMNT	00F4J
42	5-187-1-V	ACCESSIBLE VOID 5-187-1-V	12321N1105		XVOID003929	00F4K
42	5-188-1-F	TANK, FSS SUPPLY (5-188-1-F)	56511HB900		XCOMPARTMNT	00F4L
42	5-188-2-W	WASTE STORAGE TANK 5-188-2-W	12319N9110		XTANK003957	00F4M
42	5-188-4-F	TANK, FSS HYDRAULIC OIL SUPPLY (5-188-4-F)	56511HBD00		XCOMPARTMNT	00F4N
42	5-192-2-F	CONTAMINATED OIL TANK 5-192-2-F	12317N4104		XTANK003966	00F4P
42	5-197-1-F	TANK, FSS STORAGE (5-197-1-F)	56511HBH00		XCOMPARTMNT	00F4Q
42	5-201-1-F	FUEL OIL SERVICE TANK 5-201-1-F	12311N3105		XTANK003967	00F4R
42	5-201-3-F	FUEL OIL SERVICE TANK 5-201-3-F	12311N3106		XTANK003968	00F4S
42	5-204-1-F	FUEL OIL SERVICE TANK 5-204-1-F	12311N3107		XTANK003969	00F4T
42	5-204-2-F	FUEL OIL SERVICE TANK 5-204-2-F	12311N3108		XTANK003915	00F4U
42	5-212-0-E	AUX MACHINERY ROOM 2 (5-212-0-E)	66211HC900		XCOMPARTMNT	00F4V
42	5-220-2-W	WASTE STORAGE TANK 5-220-2-W	12319N9111		XTANK003918	00F4W
42	5-222-1-F	CONTAMINATED OIL TANK 5-222-1-F	12317N4105		XTANK003919	00F4X
42	5-226-1-E	SSDG ENCLOSURE (5-226-1-E)	66211HD500		XCOMPARTMNT	00F4Y
42	5-226-2-E	SSDG ENCLOSURE (5-226-2-E)	66211HD700		XCOMPARTMNT	00F4Z
42	5-250-0-E	ENGINE ROOM (5-250-0-E)	66211HE100		XCOMPARTMNT	00F5A
42	5-250-1-F	FUEL OIL STORAGE TANK 5-250-1-F	12311N1110		XTANK003920	00F5B
42	5-250-2-F	FUEL OIL STORAGE TANK 5-250-2-F	12311N1111		XTANK003943	00F5C
42	5-270-0-F	TANK, CP PROP HYDRAULIC OIL SUMP (5-270-0-F)	24511HF100		XCOMPARTMNT	00F5D
42	5-276-0-F	LUBE OIL SUMP 5-276-0-F	12315N1118		XTANK003930	00F5E
42	5-290-2-F	CONTAMINATED OIL TANK 5-290-2-F	12317N4106		XTANK003933	00F5F
42	5-292-0-E	AUX MACHINERY ROOM 3 (5-292-0-E)	66211HG300		XCOMPARTMNT	00F5G
42	5-292-1-W	WASTE STORAGE TANK 5-292-1-W	12319N9112		XTANK003909	00F5H
42	5-292-2-W	POTABLE WATER TANK 5-292-2-W	12314N3101		XTANK003947	00F5J
42	5-292-3-W	POTABLE WATER TANK 5-292-3-W	12314N3102		XTANK003945	00F5K
42	5-308-1-W	POTABLE WATER TANK 5-308-1-W	12314N3103		XTANK003959	00F5L
42	5-308-2-W	POTABLE WATER TANK 5-308-2-W	12314N3104		XTANK003960	00F5M
42	5-32-0-W	SALT WATER BALLAST TANK 5-32-0-W	12316N1102		XTANK003961	00F3J



42	5-321-1-F	CONTAMINATED OIL TANK 5-321-1-F	12317N4107		XTANK003958	00F5N
42	5-328-0-J	JP5 STORAGE TANK 5-328-0-J	12312N1101		XTANK003907	00F5P
42	5-328-1-W	SALT WATER BALLAST TANK 5-328-1-W	12316N1103		XTANK003941	00F5Q
42	5-328-2-W	SALT WATER BALLAST TANK 5-328-2-W	12316N1104		XTANK003951	00F5R
42	5-344-0-J	JP5 STORAGE TANK 5-344-0-J	12312N1102		XTANK003953	00F5S
42	5-368-01-E	STEERING GEAR ROOM (5-368-01-E)	66211HL300		XCOMPARTMNT	00F5U
42	5-368-0-V	ACCESSIBLE VOID 5-368-0-V	12321N1106		XVOID003955	00F5T
42	5-376-1-A	STOREROOM, BOSN 3 (5-376-1-A)	67211HL500		XCOMPARTMNT	00F9W
42	5-386-0-V	VOID, INACCESSIBLE (5-386-0-V)	12321HM100		XCOMPARTMNT	00F5V
42	5-390-1-A	STOREROOM, DECK GEAR (5-390-1-A)	67211HM300		XCOMPARTMNT	00F5W
42	5-392-0-V	ACCESSIBLE VOID 5-392-0-V	12321N1108		XVOID003948	00F5X
42	5-51-0-Q	EDUCTOR ROOM (5-51-0-Q)	66211H4100		XCOMPARTMNT	00F3K
42	5-56-0-F	FUEL OIL STORAGE TANK 5-56-0-F	12311N1112		XTANK003905	00F3L
42	5-64-0-F	FUEL OIL STORAGE TANK 5-64-0-F	12311N1113		XTANK003950	00F3M
42	5-84-1-F	FUEL OIL STORAGE TANK 5-84-1-F	12311N1114		XTANK003952	00F3N
42	5-84-2-F	FUEL OIL STORAGE TANK 5-84-2-F	12311N1115		XTANK003954	00F3P
42	5-FF-0-V	VOID, INACCESSIBLE (5-FF-0-V)	12321H1100		XCOMPARTMNT	00F3H